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June 13, 2017

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Subject: e-Submittal/e-Issuance Contract (Contract # 46200-711-DNR000032013-1012)
Change Request 013

Dear Angela:

enfoTech submits this Change Request #13 under the e-Submittal/e-Issuance Contract to provide additional services.

(I) Project Background:

The e-Submittal/e-Issuance Contract has delivered a few integrated IT systems to support EPD's environmental compliance and data management. They include:

- Georgia EPD Online System (GEOS): for EPD-wide e-Permitting and Compliance Reporting
- Facility Information System (FIS): for EPD-wide one-stop facility data registry
- Fee Information Management System (FIMS): for EPD-wide invoicing and payment tracking
- Land Environmental Management Information Repository (LEMIR): for the LPB-wide data repository

(II) Work Scope and Costs:

EPD desires to enhance the LEMIR system to bring in Solid Waste environment program. The Change request #13 includes project component listed in a Table below.

System Module	Cost
LEMIR Phase 3 – Solid Waste	\$501,292
Total for this Change Request:	\$501,292

Sincerely,

Change Request 013 Approved by EPD

Tony C. Jeng
Executive Vice President

R. Mosey 7/13/18

Approver Signature

Date



PREPARED FOR

Georgia Department of Natural Resources Environmental Protection Division (EPD)

LEMIR Phase 3 Project Proposal

JUNE 13, 2018

enfoTech

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1. Executive Summary

enfoTech & Consulting, Inc. (enfoTech) is pleased to submit this LEMIR Phase 3 project plan to upgrade the EPD's existing IT systems to provide data management capability for four business units from the Land Protection Branch.

Project Objectives:

The Phase 3 Plan will build on the previous project results and expand the existing five Systems to achieve the following major objectives:

Objectives	High-level Project Results
1. Expand the LEMIR to support business processes for the Solid Waste environmental interest, including the following 3 LPB Units: <ul style="list-style-type: none">▪ Solid Waste Permitting Unit▪ Environmental Monitoring Unit▪ Recovered Materials Unit	<ul style="list-style-type: none">▪ Track 12 submittal types▪ Support 6 work flows▪ Generate 13 issuances▪ Manage 2 inspection types▪ Track 4 summary reports
2. Expand the GEOS to support e-submittal required by these 3 LPB Units	<ul style="list-style-type: none">▪ Expand GEOS to add 12 new submittal types▪ Enhance GEOS-LEMIr interface to accommodate workflows and generate 13 issuance documents for these new submittal types
3. Expand the LEMIR-to-FIS system interfaces to accommodate new data input by these 3 LPB Units	<ul style="list-style-type: none">▪ Expand interface to support facility data contributed by additional Units
4. Expand the LEMIR-to-FIMS system interfaces to accommodate fee/payment records generated by all Solid Waste Fee Program	<ul style="list-style-type: none">▪ Expand interface to support 1 fee program (Solid Waste Fee Program)

High-level Work Scope:

LEMIr III will include the following high-level system expansions and enhancements.

Business UNIT	GEOS	LEMIr	GovMobile	FIMS	FIS
Solid Waste Permitting Unit	Yes	Yes	No	Yes	Yes
Environmental Monitoring Unit	Yes	Yes	No	No	Yes
Recovered Materials Unit	Yes	Yes	No	No	Yes

In the Phase 3 Plan, we have also included the following implementation services:

- **Project Facilitation Services:** manage project activities in accordance with the Capability Maturity Model Integration Level 3 (CMMI-3) compliant procedures
- **Implementation Services:** perform system configuration/customization to expand the LEMIR to meet data management needs required by additional 3 LPB Units
- **Quality Assurance:** CMMI-3 process-oriented QA to meet LPB expectations, and deliver project results on time and within budget
- **Ongoing Hosting, System Maintenance & Support Services:** optional and if selected by LPB, provide technical staff to support LPB for the use of the new system.
- **Additional Services:** enfoTech will respond to LPB's requests for additional services. A separate change request with work scope/cost will be presented to the LPB for approval prior to work engagement.



2. LEMI Phase 3 Scope

LEMI Phase 3 work scope shall include services for 3 LPB units (1 environmental interest). High-level summary of works required for each unit are summarized in the following Table.

Unit	Online Submittal	Final Issuance	Work Flow	Inspection Type	C&E Process	Summary Report	Fee Type	System Interface
Solid Waste Environmental Interest: <ul style="list-style-type: none">▪ Solid Waste Permitting Unit▪ Environmental Monitoring Unit▪ Recovered Materials Unit	12	13	6	2	0	4	1	3 (FIS, GEOS, FIMS)
Solid Waste Fee Program	Solid Waste Program wide fee management							3 (FIMS, GEOS, Wells Fargo)
Total:	12	13	6	2	0	4	1	FIS, GEOS, FIMS, Wells Fargo
Grand Total:	38 + 1 Fee Program							

Subsequent sections will list each individual process to be included in the LEMI Phase 3.

2.1 Solid Waste Units (Three Units)

LEMI 3 will cover the following business processes for the 3 Solid Waste Units (Solid Waste Permitting Unit, Environmental Monitoring Unit, and Recovered Materials Unit):

- **Online Submittal Processes:** which encompass
 - Online submittal forms via GEOS
 - Review work flow via LEMI
 - Final Decision making and issuance via LEMI
- **Inspection Management Processes:** including
 - Inspection scheduling and assignment via LEMI
 - Conduct inspection to log result / report via LEMI
- **Compliance Reporting Obligation Management and Tracking in LEMI**
- **Summary reporting functions on LEMI**

2.1.1 Solid Waste Business Processes

The LEMI III project will provide support to 6 business processes required by the Solid Waste Units. They are listed below.

Business Process Type	Business Process
W1. Coal Combustion Residuals (CCR) Permitting	New, Major Modification
W2. Inert Landfill Permitting	New, Major Modification
W3. MSW/C&D and Commercial/Industrial Landfill Permitting	New, Major Modification
W4. Private Industry Solid Waste Disposal Facility Permitting	New, Major Modification
W5. Solid Waste Processing Permitting	New, Major Modification
W6. Minor Modification Permitting	Minor Modification

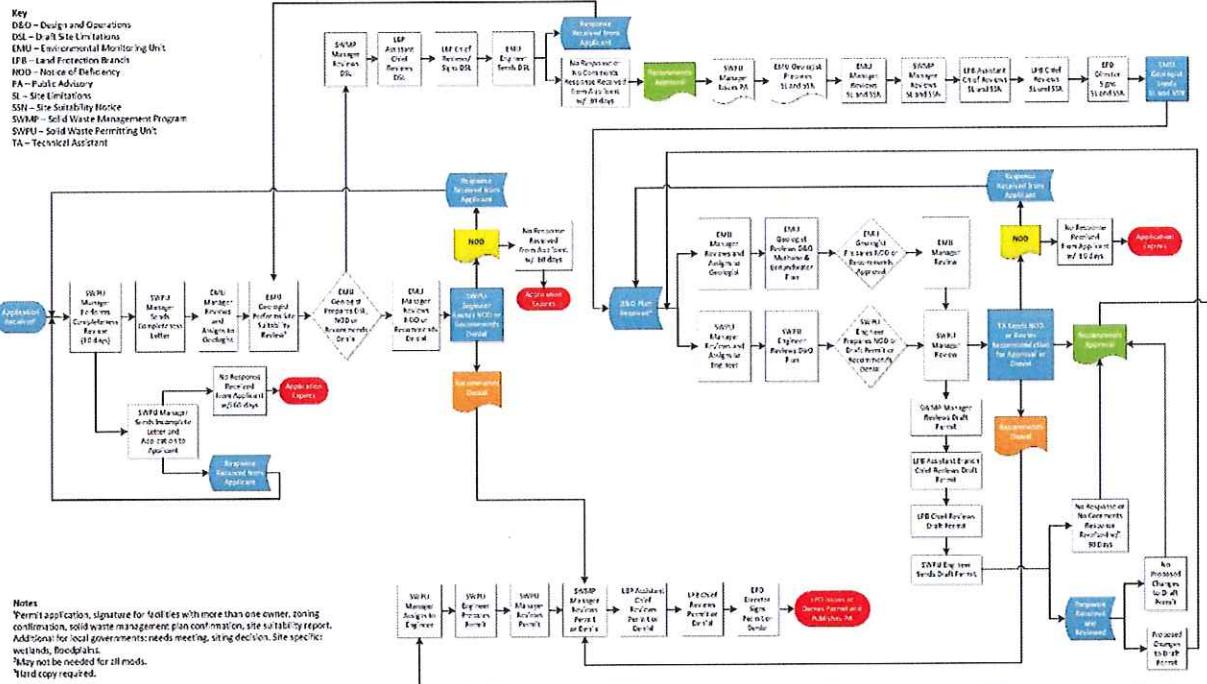
Business processes are presented on the following pages.



(1) W1. Coal Combustion Residuals (CCR) Permitting



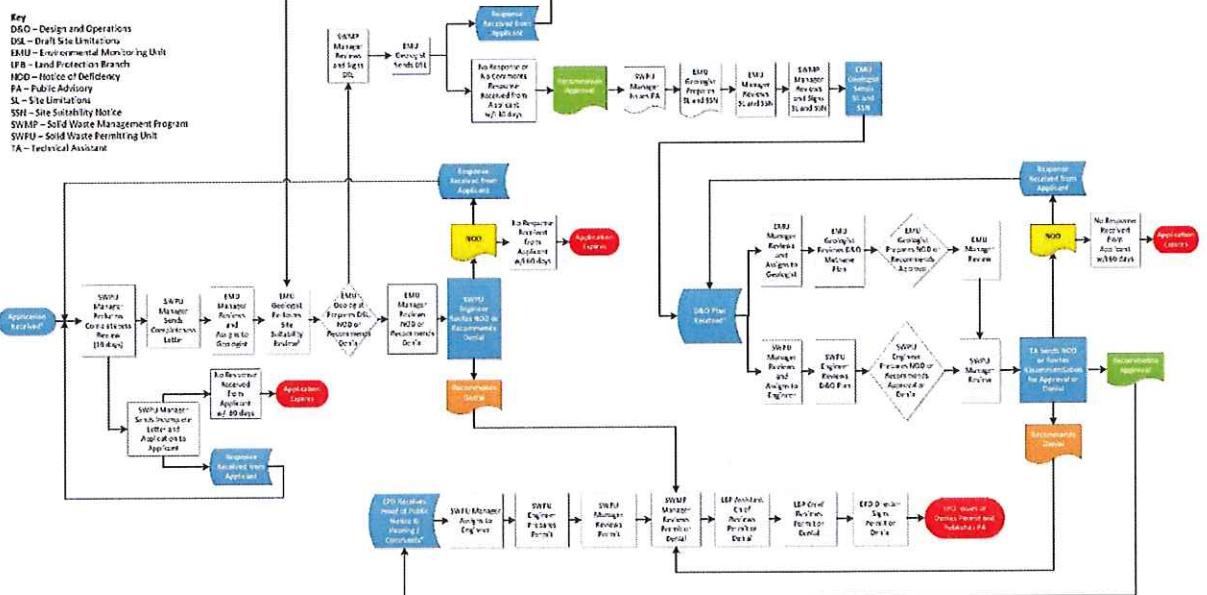
Coal Combustion Residuals (CCR) Permitting and Major Modification Process



(2) W2. Inert Landfill Permitting



Inert Landfill Permitting and Major Modification Process

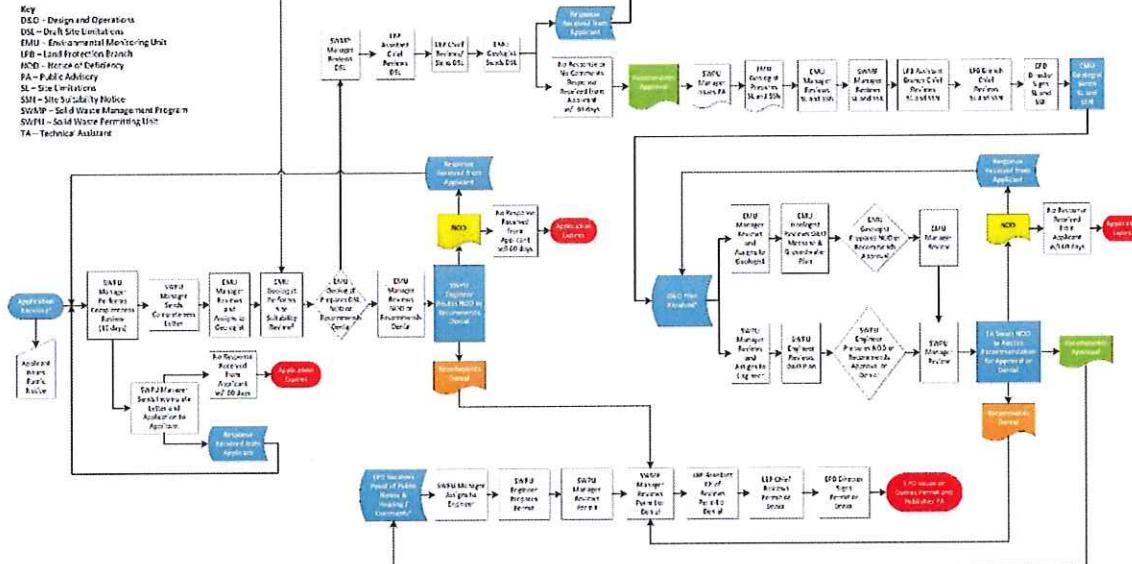




(3) W3. MSW/C&D and Commercial/Industrial Landfill Permitting



MSW/C&D and Commercial/Industrial Landfill Permitting and Major Modification Process



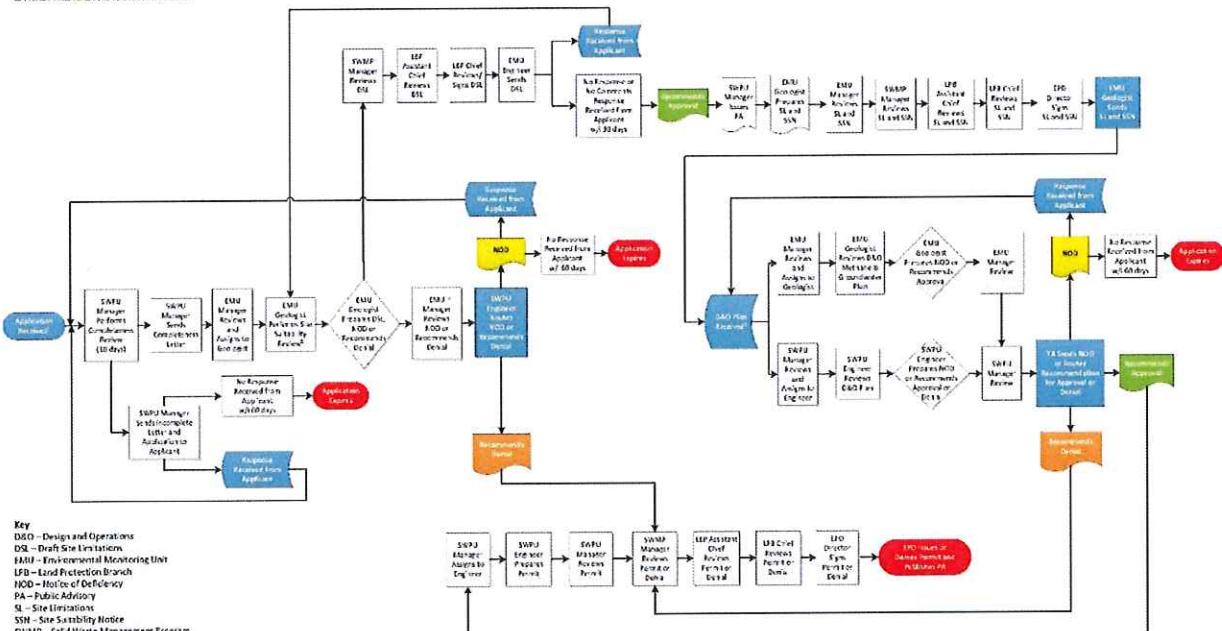
Notes:
 *Permit application, signature for facilities with more than one owner, zoning confirmation, solid waste management plan confirmation, site suitability report. Additional for local governments: needs meeting, siting decision, site specific wetlands, floodplains.
 *May not be needed for all mods.
 *Hand copy required.
 *Proof of public notice, proof of public hearing, zoning confirmation, financial assurance.

Rev. 02/06/19

(4) W4. Private Industry Solid Waste Disposal Facility Permitting



Private Industry Solid Waste Disposal Facility Permitting and Major Modification Process



Notes:
 *Permit application, signature for facilities with more than one owner, zoning confirmation, solid waste management plan confirmation, site suitability report. Site specific wetlands, floodplains.
 *May not be needed for all mods.
 *Hand copy required.

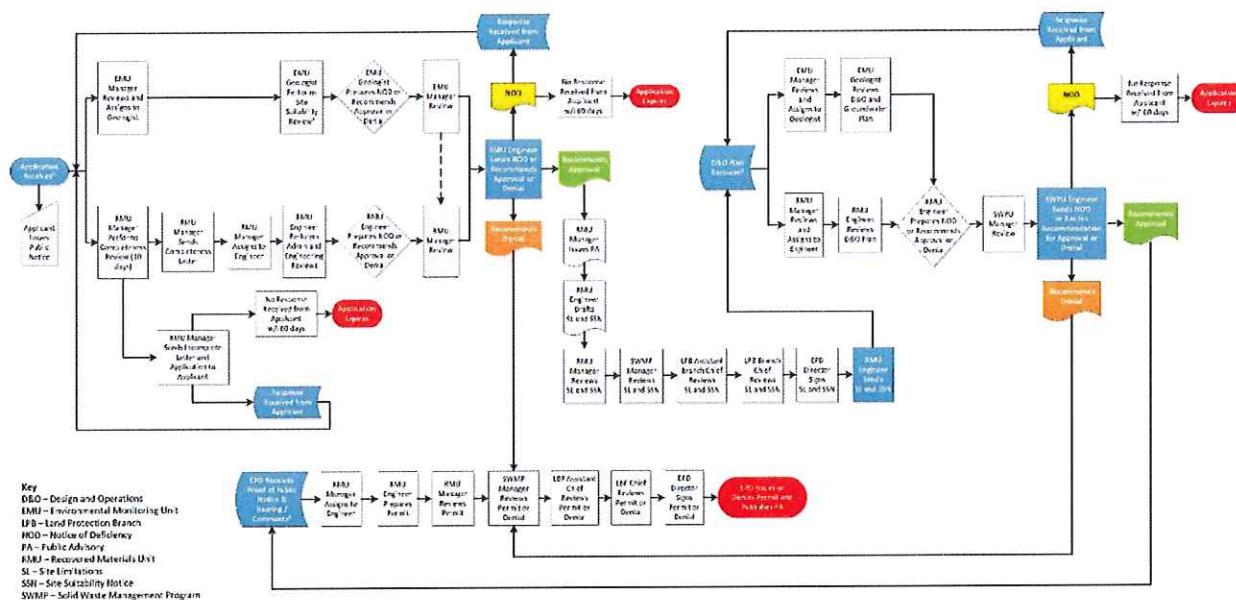
Rev. 02/06/19



(5) W5. Solid Waste Processing Permitting (air curtain destructors, baling, composting for class 3 and higher, material recovery facilities, shredding, thermal treatment)



Solid Waste Processing Permitting and Major Modification Process (air curtain destructors, baling, composting for class 3 and higher, material recovery facilities, shredding, thermal treatment)

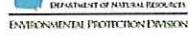


Notes:
 Permit application, signature for facilities with more than one owner, zoning confirmation, solid waste management plan confirmation, site suitability report. Additional for local governments: needs meeting, siting decision, site specific wetlands, floodplain.
 Not required.
 Proof of public notice, proof of public clearing, zoning reaffirmation, financial assurance.

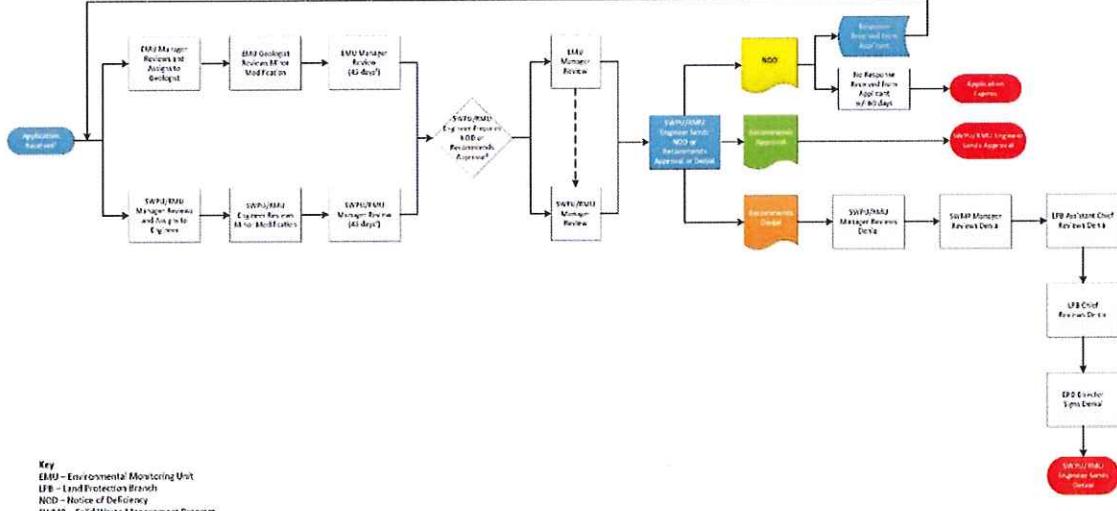
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(6) W6. Minor Modification Permitting

GEORGIA Minor Modification Permitting Process



ENVIRONMENTAL PROTECTION DIVISION



Notes:
 The application will be reviewed by SWPDU or DMR depending on the type of facility.

*Normal approval by the division in 45 days, with the exception of plan denied or incomplete; surface or groundwater monitoring plan, leachate collection, handling, or treatment system; liner systems; methane gas monitoring, collection, or treatment systems; closure or post closure plans; or received the addition of permitted acreage to allow for the installation and/or operation of environmental monitoring. See Rule 391-3-4-.02(d)(5).

*Occasionally, DMR solely prepares and sends NOD / recommends approval.

Rev. 020618



2.1.2 Online Submittal Types (Submitted in GEOS)

Under the LEMIR III project, the GEOS will be expanded to include 12 submittals. There are listed below.

#	Submittal Type Name	Form Template	Pages	Complexity
1	S1. Design and Operations Plan (Submitted as hard-copy / electronic attachment)	N/A	0	N/A
2	S2. Methane / Groundwater Plan (Submitted as hard-copy / electronic attachment)	N/A	0	N/A
3	S3. Application for Solid Waste Handling Permit, Request for Site Suitability	Appendix E – S3	2	L
4	S4. CCR ¹ Unit - Application for Solid Waste Handling Permit	Appendix E – S4	2	L
5	S5. Construction and Demolition (C&D) Materials Recycling Report	Appendix E – S5	1	L
6	S6. Request for Minor Modification To Solid Waste Handling Permit	Appendix E – S6	2	L
7	S7. Solid Waste Handling Permit Supplemental Form	Appendix E – S7	1	L
8	S8. Notification of Permit-by-Rule Operation	Appendix E – S8	1	L
9	S9. Permit-by-Rule Waste Disposal Report	Appendix E – S9	1	L
10	S10. Solid Waste Disposal Report (Quarterly Tonnage Report)	Appendix E – S10	2	L
11	S11. Remaining Capacity Report	Appendix E – S11	1	L
12	S12. Periodic Methane Monitoring Report	Appendix E – S12	5	M

2.1.3 Submission Review Work Flows (Reviewed in LEMIR)

Under the LEMIR III project, the LEMIR system will be expanded to include 6 workflows to process all 12 submittals. There are listed below. Detailed work flow diagrams are provided in Section 2.1.1.

#	Work Flow Name	Complexity
1	W1. Coal Combustion Residuals (CCR) Permitting and Major Modification Process	H
2	W2. Inert Landfill Permitting and Major Modification Process	H
3	W3. MSW ² /C&D ³ and Commercial/Industrial Landfill Permitting and Major Modification Process	H
4	W4. Private Industry Solid Waste Disposal Facility Permitting and Major Modification Process	H
5	W5. Solid Waste Processing Permitting and Major Modification Process (air curtain destructors, baling, composting for class 3 and higher, material recovery facilities, shredding, thermal treatment)	H
6	W6. Minor Modification Permitting Process	H

2.1.4 Issuance Documents (Generated in LEMIR, and Issued to GEOS)

The LEMIR system will be expanded to generate 13 document types required by 6 Solid Waste business processes. There are listed below.

¹ CCR: Coal Combustion Residuals.

² MSW: Municipal Solid Waste.

³ C&D: Construction & Demolition.



#	Issuance Document Name	Complexity ⁴
1	ISS1. Completeness Letter	L
2	ISS2. Draft Site Limitations	H
3	ISS3. Notice of Deficiency	L
4	ISS4. Recommendation for Approval or Denial	L
5	ISS5. Incompleteness Letter	L
6	ISS6. Public Advisory	M
7	ISS7. Site Limitations	H
8	ISS8. Site Suitability Notice	H
9	ISS9. Coal Combustion Residuals (CCR) Permit	H
10	ISS10. Inert Landfill Permit	H
11	ISS11. MSW/C&D and Commercial/Industrial Landfill Permit	H
12	ISS12. Private Industry Solid Waste Disposal Facility Permit	H
13	ISS13. Solid Waste Processing Permit	H

2.1.5 Inspection Management Processes (Schedule, Log Result and Review in LEMIR)

The LEMIR system will be expanded to support 2 inspection types required by the Solid Waste units.

There are listed below.

#	Inspection Type Name	Complexity ⁵
1	I1. Well Installation Field Inspection Checklist	M
2	I2. Groundwater and methane audits	M

2.1.6 C&E Management Processes (Managed in LEMIR)

The Units do not have requirements on C&E management processes in Phase 3. The existing LEMIR C/E module will be used by the solid waste units. No changes will be made to the LEMIR C/E module.

2.1.7 Summary Reporting Functions (LEMIR)

The LEMIR system will be expanded to generate 4 reports. They are listed below:

#	ID	Report Name	Report Format	Complexity
1	R1.	Solid Waste Facilities Report	Appendix A	L
2	R2.	Permits Issued Report	Appendix B	L
3	R3.	Annual Remaining Capacity Report	Appendix C	M

⁴ Example issuance documents are not yet provided by EPD. The complexity is assigned based on the following assumptions. If the actual complexity of final issuance document is significantly higher than the assumption, additional cost may be required.

- ❖ L: 1 - 2 pages
- ❖ M: 3 - 5 pages
- ❖ H: More than 5 pages

⁵ Example inspection reports are not yet provided by EPD. The complexity is assigned based on the following assumptions. If the actual complexity of final document is significantly higher than the assumption, additional cost may be required.

- ❖ L: 1 - 2 pages
- ❖ M: 3 - 5 pages
- ❖ H: More than 5 pages



#	ID	Report Name	Report Format	Complexity
4	R4.	Tonnage Totals by Quarter Report	Appendix D	M

2.1.8 Fee Management Processes (LEMIR + FIMS + GEOS)

Please see Section 2.2 for FIMS enhancements to support Solid Waste fee management requirements.

2.1.9 LEMIR Integrations with Other Systems

ID	Integration	Included in LEMIR Phase 3?
1.	LEMIR – FIS Interface	Yes
2.	LEMIR – GEOS Interface	Yes
3.	LEMIR – FIMS Interface	Yes
4.	LEMIR – Mobile Application	No

2.2 Fee Management Component

LEMIR Phase 3 will cover the following fee program:

- Solid Waste Fee

2.2.1 Solid Waste Fee Program

The SW Fee Program has the following requirements:

Req. ID	Business Requirements	GEOS Function	LEMIR Function	FIMS Function
1.	System will be able to capture the SW facility tonnage	Not needed	Yes	Not needed
2.	Fee amount will be automatically calculated based on SW fee calculation logics	Not needed	Yes	Not needed
3.	Fee amount will be synced from LEMIR to FIMS as a charge	Not needed	Yes	Yes
4.	Staff will be able to generate invoices to SW facilities	Not needed	Not needed	Yes
5.	Allow SW facilities to pay invoice online by ACH; or pay by check to Wells Fargo lockbox	Yes	Not needed	Yes
6.	Online fee payments (ACH) will be synced from GEOS to FIMS	Yes	Not needed	Yes
7.	SW fee lockbox payments will be automatically synced from Wells Fargo to FIMS	Not needed	Not needed	Yes
8.	Confirmed payment will be posted to FIMS, and automatically synced to GEOS and LEMIR	Yes	Yes	Yes

2.3 Assumptions

- No change to core functionalities of LEMIR, GEOS, FIMS, or FIS systems.
- Based on the EPD's process diagrams, we assume the workflow for New application and Major permit Modification will be the same for all solid waste business processes.
- Based on the templates of Solid Waste application forms, data entry forms for new and major modification actions are identical.
- EPD does not provide application form templates for Solid Waste renewal or termination processes. The quote assumes that the same data entry forms will be reused for renewal or termination processes.
- EPD does not provide work flow processes for Solid Waste renewal or termination actions. The quote does not include work scope for implementing renewal or termination work flows for Solid Waste.



- The application form data will be available in LEMIR for LPB staff to review. However, the quote does not include effort to auto-populate online form specific data elements into LEMIR environmental interest screens for Solid Waste units.
- The quote includes work scope to auto-populate generic data elements to LEMIR for Solid Waste facilities, including facility name, physical location, mailing address, and RO account profile information (name, email, and address).
- The complexity for application, issuance, inspection and enforcement document templates is assigned based on the following assumptions. If the actual complexity of final document is significantly higher than the assumption, additional cost may be required.
 - L: 1 - 2 pages
 - M: 3 - 5 pages
 - H: More than 5 pages
- Per EPD's request, the quote does not include any work scope for GovMobile.
- Per EPD's request, the quote does not include any work scope for Surface Mining program.



3. Project Deliverables & Schedule

3.1 Technical Approach

Based off the LEMIR Project Phase 1 and 2 implementation experiences, enfoTech proposes an Agile development model with “8-stage, 4-Iterations” implementation plan to deliver the LEMIR Phase 3. The implementation shall be a full-service project that includes project facilitation, software configuration/customization, installation, training, site visits, Webinars, and technical support. Objectives for each of 4 system iterations are summarized below:

Iteration	Results	Techniques
SCD	<ul style="list-style-type: none">▪ LEMIR III System Configuration Documents (SCD) V.1<ul style="list-style-type: none">○ Design specifications on online submittals, work flows, issuance documents, inspection forms, enforcement documents and summary reports○ Design specifications on solid waste fee management process in LEMIR, FIMS and GEOS○ LEMIR III to FIMS interface○ LEMIR III to GEOS interface	<ul style="list-style-type: none">▪ 3-Day onsite LEMIR orientation and Requirement Verification▪ SCD document walk through via GoToMeeting▪ SCD revisions
Itr. #1 Alpha	<ul style="list-style-type: none">▪ LEMIR III SCD V.2: LPB comments from SCD V.1 review▪ GEOS System V.1: online forms built with simple validation rules. PDF reports for all new online forms not included at this stage▪ LEMIR System V.1: Draft environmental interest screens will be built. Draft issuance documents, inspection forms, and enforcement documents will be configured to link with proper submittal types / environmental interest. Detailed document merge functionalities will not be completed at this stage.▪ FIMS System V.1: Solid Waste fee program will be added in FIMS. A draft invoice report will be built for SW fee program.	<ul style="list-style-type: none">▪ System configurations▪ Walk through Interim versions with LPB▪ 2-Day onsite Iteration 1 review▪ Revise SCD V.1 to include LPB comments
Itr. #2 Beta	<ul style="list-style-type: none">▪ LEMIR III SCD V.3: final version incorporated with LPB comments from SCD V.2 and alpha system review▪ GEOS System V.2: online forms will be enhanced based on LPB comments. PDF reports for all new online forms will be implemented at this stage.▪ LEMIR System V.2: environmental interest screens, workflows, issuance documents, inspection forms, and enforcement documents will be enhanced based on LPB comments. Detailed document merge functionalities will be completed at this stage.▪ FIMS System V.2: SW invoice report will be enhanced based on LPB comments. ACH payment flow, and lockbox payment flow will be completed for SW fee program.	<ul style="list-style-type: none">▪ System configurations▪ Walk through Interim versions with LPB▪ 4-Hour GoToMeeting Iteration 2 review▪ Revise SCD V.2 to include LPB comments, and finalize SCD V.3
Itr. #3 QA	<ul style="list-style-type: none">▪ GEOS System V.3: online forms enhanced based on LPB comments▪ LEMIR System V.3: environmental interest screens, workflows, issuance documents, inspection forms, and enforcement documents will be enhanced based on LPB comments. Summary reports will be developed based off SCD V.3	<ul style="list-style-type: none">▪ System configurations▪ Walk through Interim versions with LPB▪ 4-hour GoToMeeting walkthrough session for Iteration 3 review



Iteration	Results	Techniques
	<ul style="list-style-type: none">▪ FIMS System V.3: SW invoice report, ACH payment flow, and lockbox payment flow will be enhanced based on LPB comments	
Itr. #4 UAT	<ul style="list-style-type: none">▪ GEOS UAT version▪ LEMIR UAT version▪ FIMS UAT version▪ LEMIR integrations with GEOS, FIS, and FIMS UAT version▪ LPB completes the testing and approves the LEMIR III for production use	<ul style="list-style-type: none">▪ System configurations▪ Walk through Interim versions with LPB▪ Abbreviated system training via GoToMeeting▪ LEMIR III Test Plan

For this project, enfoTech proposes to perform most of the work at our NJ office. Ample onsite visits have been budgeted for system design, walk-through of system iterations, training, and roll-out planning. In addition, we have included ample Webinars throughout this project to ensure that we maintain a close and clear line of communication with LPB project team members. Regular project status updates with the LPB management are also included.

- **Stage 1 – Project Start-up, Planning, and Management:** establish enfoTech's internal development and project management environment, develop the Project Plan, and conduct project kick-off meetings. Coordinate project, conduct bi-weekly conference calls, follow up on issues and action items, develop and deliver monthly reports, and maintain schedule and project documents.
- **Stage 2 – Requirements Verifications, System Design and Specifications:** enfoTech will conduct onsite LEMIR Orientation and Requirement Verification workshop to confirm requirements and gather information for system design specifications. After the workshop, enfoTech will develop a system configuration and customization specifications (SCD). To facilitate LPB's review of the SCD, enfoTech will walk through the SCD with LPB through GoToMeeting session. LPB will review and provide comments on the SCD version 1.
- **Stage 3 – System Configuration and Customization – Iteration 1 (Alpha):** Based on LPB's comments on SCD V.1, enfoTech will revise and deliver SCD V.2. Based on SCD V.2, enfoTech will complete the 1st iteration of system configuration and deliver an alpha version. To facilitate LPB's review of 1st iteration (Alpha system), enfoTech will walk through the system with LPB through an onsite workshop. After the workshop, LPB will review and provide comments on Alpha system.
- **Stage 4 – System Configuration and Customization – Iteration 2 (Beta):** Based on LPB's comments on SCD V.2 and Alpha system, enfoTech will revise and deliver a final version of SCD (V.3). enfoTech will complete the 2nd iteration of system configuration, and deliver a beta version. To facilitate LPB's review of the 2nd iteration (Beta system), enfoTech will walk through the system with LPB through a GoToMeeting workshop. After the workshop, LPB will review and provide comments on Beta system.
- **Stage 5 – System Configuration and Customization – Iteration 3 (QA):** Based on the final SCD (V.3) and LPB's feedback on Beta system, enfoTech will complete the 3rd iteration of system configuration and deliver a QA version to LPB. To facilitate LPB's review of the 3rd iteration (QA system), enfoTech will walk through the system with LPB via GoToMeeting session. After the meeting, LPB will review and provide comments on QA system.
- **Stage 6 – User Acceptance Testing, Pilot – Iteration 4 (UAT):** Based on LPB's comments on QA system, enfoTech will complete the 4th iteration of system configuration and deliver a UAT version to LPB. enfoTech will first provide an abbreviated training to Pilot users through GoToMeeting, deploy UAT version, and provide technical services to support User Acceptance Testing (UAT), a system Pilot with a small group of users. Based on the comments / issues reported by LPB during the UAT period,



enfoTech will resolve issues found, prepare release packages, and deploy interim patches to support UAT.

- **Stage 7 – System Documentation, Training, and Roll-out Planning:** enfoTech will deliver system documents for LEMIR III System, and GEOS Online Submittals for LEMIR Phase 3. enfoTech will also deliver a training plan and conduct training for end users and administrators; issue roll-out plan and prepare for LEMIR – Phase 3 roll-out.
- **Stage 8 – System Go-Live & Maintenance Support:** enfoTech will deliver the final production package. Provide warranty services for ninety (90) calendar days. After the Warranty period, enfoTech offers system maintenance support services via our annual technical support and maintenance program with a reasonable fee.

Technical approaches for each project stage are described in the following sections. For each project stage, enfoTech has included:

- Technical approach to complete the work
- Deliverables, enfoTech responsibilities, and LPB's responsibilities

3.1.1 Stage 1: Project Start-up, Planning and Management

(A) Approach

For this project, enfoTech proposes to host the LEMIR III system at the enfoTech Data Center immediately following the project kickoff. By installing the LEMIR III system, LEMIR III units shall have an opportunity to review the current system functionality and design as a basis for system changes and modifications required for the system configuration.

(1) Project Management Process:

1. **Project kickoff meeting:** This will be held to introduce the project team members, identify high-level project goals, and set a preliminary project schedule.
2. **Project Plan:** enfoTech will work with the LPB Project Manager to develop a Project Plan document that will provide a detailed description of tasks to be performed by enfoTech. Roles and responsibilities will be assigned to project team members. A project schedule will be developed that will coordinate the enfoTech activities with the LPB's activities.
3. **Single Point of Contact:** A single Point-of-Contact will be established to work with the LPB to facilitate communication between the LPB project manager and various enfoTech resources. The Contact will also play a key role in project implementation.
4. **Project Progress Reports:** The enfoTech Project Manager will host regular project GoToMeeting conference calls (bi-weekly, with the frequency adjusted based on project needs) with the LPB Project Manager (and other required members) to review project activities for the previous weeks, and outline accomplishments and tasks planned for the following week. In addition, monthly project reports will be submitted to the LPB for review. The enfoTech Project Manager will work closely with the LPB Project Manager and representatives to consolidate input, include enfoTech task leaders' input, prepare project status updates monthly and submit them to the LPB Project Manager for review. The status report will contain accomplishments, tasks planned for the next reporting period, and the overall project status.
5. **Cost Management:** Project scope and deliverables will be carefully tracked. The LPB Project Manager must approve any potential out-of-scope items. EnfoTech will submit monthly invoices



(including fees for approved deliverables and expenses) to the LPB manager for review and approval. A project spending tracking procedure will be implemented to measure spending against the deliverables.

6. **Scope Management:** Our project goal is to complete the Project within budget, on time, and meet/exceed project requirements. Any additional services (or cost items) will be communicated to the LPB Project Manager prior to engagement of such services and costs.

(2) Project Management Tools

In addition to the standard face-to-face project review sessions and using Microsoft Project to manage milestones and schedules, enfoTech will use the following tools to enhance our project management capabilities:

Project Team Web Site: At the onset of the project, enfoTech will deliver a project team web site to the LPB. The project team web site will be used as a project management tool for:

- Document repository
- Itemizing deliverables, milestones, and schedule
- Establishing “tasks” required for each deliverable
- Assigning resources to each task defined for all deliverables
- If required, establishing a time tracking procedure in the Project Server to alert all project personnel to log-in work activities on a daily basis so that the project management team can easily monitor the project progress
- Issue management
- Report management

An example illustration of the Project Team Website follows:

The screenshot shows a Microsoft SharePoint-like website interface. At the top, there are navigation links: 'BROWSE' and 'PAGE'. On the right, there are links for 'Georgia DNR', 'GEOS / FIS', 'FIMS', and 'LEMIR'. The 'LEMIR' link is highlighted in blue. Below the header, there is a large 'LEMIR' logo. To the left, a vertical navigation menu includes 'Home', 'Documents', 'Recent', 'LEMIR Issue Tracking', 'Site Contents', and a 'EDIT LINKS' button. In the center, the word 'Announcement' is displayed in large blue text, followed by the date '10/21/2015, Wednesday'. Below the date, it says 'The latest URLs are listed below:' and provides a link: <https://geos.epd.georgia.gov/UAT/LEMIR/GovEnt/Shared/Pages/Main/Login.aspx>.

enfoTech will establish user accounts for the new LPB project members to allow the members to access the Team web site to share information and to monitor project progress.

Conference Call Bridge: Periodically, conference calls will be held which will include Project Team members. A conference call bridge will be set up for each of these calls, hosted by enfoTech.

Web Conferencing Tool: Web conferencing capabilities will be available for project conference calls. This will allow all project team members to view presentations as they are being presented. EnfoTech currently uses GoToMeeting.



(3) Project Role and Responsibility

enfoTech proposes the following general project roles and responsibilities for the Team.

EnfoTech Responsibilities:

- enfoTech will provide a single point of contact for (1) providing overall project facilitation services, (2) all project-related communications, (3) coordinating the attendance of enfoTech project member at project meetings, (4) addressing the LPB's comments on deliverables, and (5) providing overall coordination from enfoTech members during the execution of the project.
- Create and host an open Internet-based Project Team Web site to serve as a central repository for project documents, shared technologies, and project updates. The Project Team Web site will also serve as a "project portal" through which enfoTech will distribute documents to project members, and the LPB will provide comments on deliverables back to enfoTech.
- Develop and maintain a project plan with a project schedule. EnfoTech will post the project plan to the Project Team Web site and, when revised, update the Web site with the newest version or issue the change(s) as a separate addendum. The project plan will be provided as a Gantt chart, Microsoft Project file, or PDF file.
- Throughout the project implementation period, host bi-weekly project status GoToMeeting conference calls as necessary, for 1-2 hours/call, for project members to discuss project-related issues. EnfoTech will set up call logistics, prepare draft agendas, document minutes of the conference calls, and post the minutes on the Project Team Web site.
- Provide technical services to follow up on action items developed from the conference calls
- enfoTech's project manager will submit monthly project reports to the LPB project manager. The monthly project report shall include accomplishments, upcoming tasks, project schedule updates, action items, issues, and proposed resolutions for the issues.
- Tony Jeng will provide the senior level management support to assist in issues that cannot be resolved at the project manager level.

EPD's Responsibilities:

- EPD IT shall provide a project manager for (1) all project-related communications, (2) coordinate the attendance of representatives from applicable member agencies at project meetings, and compile and deliver consolidated comments on deliverables (including comments from applicable member agencies), and (3) provide overall direction during the execution of the project.
- LPB will provide subject matter experts (SME) identified for this project and provide overall project requirements.
- LPB will provide enfoTech with information/materials relating to the land databases that will require data migration.
- LPB will review deliverables and provide enfoTech with consolidated written comments on all of the draft deliverables. LPB will provide feedback within 10 business days of receipt if the document is less than 100 pages, and within 15 days if the document exceeds 100 pages. LPB will provide feedback within 15 business days for software deliverables.

**(B) Stage 1 Deliverables**

Deliverable	enfoTech's Responsibility	LPB's Responsibility
1.1 A web-based project team website	<ul style="list-style-type: none">▪ Create user accounts for new project team members▪ Create shared file library directories required for the project▪ Create requirement and issue lists to be used during the project▪ Introduce project team members to the website, its structure, and alert setting options	<ul style="list-style-type: none">▪ Log into team website with given account▪ Set up alert on the relevant directories and issue lists▪ Approve team website accessibility
1.2 A project plan document	<ul style="list-style-type: none">▪ Issue draft project plan▪ Revise project schedule based on project kickoff discussions▪ Perform risk analysis based on known infrastructure, timeline, and resource availability▪ Develop scope management and acceptance criteria▪ Finalize project plan	<ul style="list-style-type: none">▪ Review project plan▪ Approve project plan
1.3 A project kickoff meeting to review the project plan	<ul style="list-style-type: none">▪ Prepare kickoff meeting agenda• Hold a project kickoff meeting via a GoToMeeting conference call• Recommend hardware and software (pre-kickoff)	<ul style="list-style-type: none">▪ Review and approve kickoff meeting agenda▪ Coordinate subject matter experts to attend the kickoff meeting
1.4 Host Bi-Weekly GoToMeeting conference calls	<ul style="list-style-type: none">▪ Bi-weekly project status GoToMeeting conference calls (1 hour each)▪ Setup call logistics▪ Prepare call agenda▪ Issue meeting minutes	<ul style="list-style-type: none">▪ Coordinate participation of the appropriate SMEs for the project status conference calls▪ Prepare projector and workstation/laptop for GoToMeeting conference calls▪ Review meeting minutes
1.5 Monthly project reports	<ul style="list-style-type: none">▪ Prepare monthly project report	<ul style="list-style-type: none">▪ Review monthly report▪ Approve monthly report and process invoice or request for reissue

3.1.2 Stage 2: Requirement Verifications, System Design and Specifications**(A) Approach****(1) Requirement Verification Workshop & System Configuration Documents:**

enfoTech will conduct a comprehensive Requirement Verification Workshop to ensure that the system modifications and enhancements that need to be made for LEMIR III are well documented.

(2) System Configurations Document:

After the Workshop, enfoTech will deliver the following document to LPB:

- **System Configuration Documents (SCD):** provides configuration settings, enhancements, and external system interface specifications required to change the LEMIR Phase 2 system to meet each of the requirements. EnfoTech will deliver a SCD with the following specifications:
 1. LEMIR III System Configurations
 2. GEOS System Configuration Document for LEMIR III Submittals (Phase 3)
 3. LEMIR III-to-FIMS System Configurations

**(3) Product Quality Assurance:**

enfoTech will perform internal peer-review of all document deliverables. We utilize the Capability Maturity Model Integration (CMMI) level 3 quality assurance business processes to manage the quality of deliverables throughout the product development life cycle.

(4) Document Walk-through with LPB (GoToMeeting)

After the version 1 system configurations document is completed, enfoTech will conduct a SCD walk-through with LPB via GoToMeeting during one of the status meetings.

- To walk through SCD with LPB
- To verify that system configuration specifications documented in the SCDs can fully support LPB's business needs
- Capture LPB comments, and address LPB comments in the next SCD version

(B) Stage 2 Deliverables

Deliverable	enfoTech's Responsibility	LPB's Responsibility
2.1 LEMIR Orientation and Requirement Verification Workshop (3-Day Onsite)	<ul style="list-style-type: none">▪ Prepare agenda for an onsite requirement verification workshop▪ Perform LEMIR Orientation with EPD▪ Perform requirement verification and analysis with EPD• Address LPB's comments	<ul style="list-style-type: none">▪ Approve meeting agenda▪ Coordinate SMEs to attend the workshop▪ Provide documents / templates
2.2 LEMIR Phase 3 System Configuration Document (SCD) (Version #1)	<ul style="list-style-type: none">• Develop a draft SCD for LEMIR, GEOS and FIMS systems for LEMIR Phase 3.• Walk through the SCD with LPB• Review LPB's input and revise system configuration document	<ul style="list-style-type: none">▪ Review and provide comments on draft system configuration/customization document and mark up comments and required modifications to the document
2.3 LEMIR IT Architecture & Hosting Assessment Document	<ul style="list-style-type: none">• Develop a draft document to assess current IT architecture and hosting environment for LEMIR, and enhancement evaluation• Review LPB's input and revise the document• Issue final IT Architecture & Hosting Assessment Document	<ul style="list-style-type: none">▪ Review draft IT Architecture & Hosting Assessment Document and mark up comments and required modifications to the document▪ Approve final Assessment Document

3.1.3 Stage 3: System Configuration Iteration 1 (Alpha)**(C) Approach****(1) System Configuration Documents (Version #2):**

enfoTech will incorporate LPB's comments on V.1 to revise and deliver the 2nd Iteration of System Configuration Documents, which shall include specifications on:

- LEMIR III System Configuration
- LEMIR III-to-FIMS System Configuration
- GEOS System Configuration for LEMIR III Submittals (Phase 3)

(2) LEMIR System – Iteration 1 (Alpha):

enfoTech will configure the System based on the SCD V.2. The iteration #1 will focus on the following aspects:

- **GEOS System V.1:** Phase 3 online forms will be implemented with simple validation rules. PDF reports for all new online forms will not be implemented at this stage.
- **LEMIR System V.1:** Draft environmental interest and workflows screens will be built. Draft issuance documents, inspection forms, and enforcement documents will be configured to link properly with



corresponding submittal types / environmental interest. Detailed document merge functionalities will not be completed at this stage.

- **FIMS System V.1:** Solid Waste fee program will be added in FIMS. A draft invoice report will be built for SW fee program.

(3) Product Quality Assurance:

enfoTech will perform internal peer-review of all document deliverables and complete testing of all software deliverables. We utilize the Capability Maturity Model Integration (CMMI) level 3 quality assurance business processes to manage the quality of deliverables throughout the product development life cycle.

(4) System Walk-through with LPB (Onsite) – 1st Iteration (Alpha System)

After system configuration, enfoTech will conduct a system walk-through with LPB via onsite workshop.

- To verify that system configuration specifications documented in the SCDs can fully support LPB's business needs
- To walk through Alpha system with LPB
- Capture LPB comments and record at the Team Website
- Address LPB comments in the next SCD version and system iteration

(D) Stage 3 Deliverables

Deliverable	enfoTech's Responsibility	LPB's Responsibility
3.1 LEMIR Phase 3 System Configuration Document (SCD) (Version #2)	<ul style="list-style-type: none">• Revise SCD (V1.0) based on LPB's comments.• Review LPB's input and revise system configuration document• Issue SCD V2.0	<ul style="list-style-type: none">▪ Review draft system configuration/customization document and mark up comments and required modifications to the document• Approve SCD for system configuration/customization
3.2 LEMIR Configuration – Iteration 1	<ul style="list-style-type: none">▪ Configure LEMIR Phase 2 System based on the SCD V.2▪ Complete 1st Iteration configuration▪ Perform internal QA▪ Deliver LEMIR – iteration 1	<ul style="list-style-type: none">▪ Provide templates and data required for system configurations▪ Review and comments on the 1st iteration version
3.3 GEOS Online Submittals for LPB Phase 3 Configuration – Iteration 1	<ul style="list-style-type: none">▪ Configure GEOS for LPB online submittals for Phase 3 based on SCD V.2▪ Establish LEMIR to GEOS data exchanges▪ Perform internal QA▪ Deliver a revised GEOS	<ul style="list-style-type: none">▪ Provide templates and data required for GEOS configuration and data exchange development▪ Review and comment on the deliverable
3.4 FIMS Fee Management for LPB Phase 3 Configuration – Iteration 1	<ul style="list-style-type: none">▪ Expand FIMS based on the SCD V.2▪ Complete configuration▪ Perform internal QA• Deliver FIMS – Iteration #1	<ul style="list-style-type: none">▪ Provide templates and data required for system configurations
3.5 LEMIR Onsite System Review – Iteration 1 (2-Day Onsite)	<ul style="list-style-type: none">▪ Prepare agenda for an onsite system review workshop▪ Perform iteration 1 system walk through with EPD• Gather and address LPB's comments	<ul style="list-style-type: none">▪ Approve meeting agenda▪ Coordinate SMEs to attend the workshop▪ Review iteration 1 systems and provide comments▪ Log comments to the project team website



3.1.4 Stage 4: System Configuration Iteration 2 (Beta)

(A) Approach

(1) System Configuration Documents (Version #3):

enfoTech will incorporate LPB's comments on SCD V.2 and Alpha systems to revise and deliver the 3rd Iteration of System Configuration Documents, which shall include specifications on:

- LEMIR III System Configuration
- LEMIR III-to-FIMS System Configuration
- GEOS System Configuration for LEMIR II Submittals (Phase 3)

(2) LEMIR System – Iteration 2 (Beta System):

Based on LPB's comments on LEMIR Alpha system and SCD V.2, enfoTech will improve the Systems (LEMI, FIMS, and GEOS) to implement additional business logics and systems integrations under the Iteration 2 cycle. The iteration 2 shall deliver end-to-end support from the GEOS submittals, FIS integration, to LEMIR review, onto final issuance, and FIMS payment integrations.

The iteration #2 (Beta version) shall include:

- **GEOS System V.2:** online forms will be enhanced based on LPB comments. PDF reports for all new online forms will be implemented at this stage.
- **LEMI System V.2:** environmental interest screens, workflows, issuance documents, inspection forms, and enforcement documents will be enhanced based on LPB comments. Detailed document merge functionalities will be completed at this stage.
- **FIMS System V.2:** SW invoice report will be enhanced based on LPB comments. ACH payment flow, and lockbox payment flow will be completed for SW fee program.

(3) Product Quality Assurance:

enfoTech will perform internal peer-review of all document deliverables and complete internal testing of all software deliverables. We utilize the Capability Maturity Model Integration (CMMI) level 3 quality assurance business processes to manage the quality of deliverables throughout the product development life cycle.

(4) System Walk-through with LPB – Iteration #2

After completing LEMIR iteration #2 configurations, enfoTech will conduct a system walk-through with LPB via GoToMeeting.

- To verify that LPB comments on LEMIR-iteration #1 are addressed
- Capture LPB comments and record at the Team Website
- Address LPB comments in the next system iteration

(B) Stage 4 Deliverables

Deliverable	enfoTech's Responsibility	LPB's Responsibility
4.1 LEMIR Phase 3 System Configuration Document (SCD) (Version #3)	<ul style="list-style-type: none">• Revise SCD (V2.0) based on LPB's comments.• Review LPB's input and revise system configuration document• Issue SCD final version (V3.0)	<ul style="list-style-type: none">▪ Review draft system configuration/customization document and mark up comments and required modifications to the document• Approve final system configuration/customization document
4.2 LEMIR – Configuration – Iteration 2	<ul style="list-style-type: none">▪ Expand LEMIR – iteration 1 based on the approved SCD and LPB's comments from Iteration 1	<ul style="list-style-type: none">▪ Provide templates and data required for system configurations



Deliverable	enfoTech's Responsibility	LPB's Responsibility
	<ul style="list-style-type: none">▪ Complete configuration▪ Perform internal QA▪ Deliver LEMIR – Iteration #2	
4.3 GEOS Online Submittals for LPB Phase 3 Configuration – Iteration 2	<ul style="list-style-type: none">▪ Configure GEOS for LPB online submittals▪ Establish LEMIR to GEOS data exchanges▪ Perform internal QA• Deliver a revised GEOS	<ul style="list-style-type: none">▪ Provide templates and data required for GEOS configuration and data exchange development▪ Review and comment on the deliverable
4.4 FIMS Fee Management for LPB Phase 2 Configuration – Iteration 2	<ul style="list-style-type: none">▪ Expand FIMS – iteration 1 based on the approved SCD and LPB's comments from Iteration 1▪ Complete configuration▪ Perform internal QA• Deliver FIMS – Iteration #2	<ul style="list-style-type: none">▪ Provide templates and data required for system configurations
4.5 LEMIR System Review – Iteration 2 (4-Hour via GoToMeeting)	<ul style="list-style-type: none">▪ Prepare agenda for an onsite system review workshop▪ Perform iteration 2 systems walk through with EPD• Address LPB's comments	<ul style="list-style-type: none">▪ Approve meeting agenda▪ Coordinate SMEs to attend the workshop▪ Review iteration 2 systems and provide comments▪ Log comments to the project team website

3.1.5 Stage 5: System Configuration Iteration 3 (QA)

(A) Approach

(1) LEMIR System – Iteration 3 (QA System):

enfoTech will improve the Systems based on LPB's review of Iteration 2 systems and SCD Version 3. The iteration 3 (QA version) is a precursor of the User Acceptance Testing. The QA version will allow LPB to verify all business processes are completed, data entry screens are up to date, calculation/logics are accurate, and reports are completed. The QA version shall include:

- Enhanced LEMIR III
- Enhanced GEOS expansion for Phase 3 submittal types
- Enhanced FIMS expansion for SW fee program
- Enhanced LEMIR integrations with GEOS, FIS, FIMS

(2) Product Quality Assurance:

enfoTech will complete internal testing of all software deliverables. We utilize the Capability Maturity Model Integration (CMMI) level 3 quality assurance business processes to manage the quality of deliverables throughout the product development life cycle.

(3) System Walk-through with LPB – 3rd iteration

After completing LEMIR iteration #3 configurations, enfoTech will conduct a system walk-through with LPB via GoToMeeting session.

- To verify that LPB comments on previous iterations are addressed
- Capture LPB comments and record at the Team Website
- Address issues before delivering a QA version to LPB

**(B) Stage 5 Deliverables**

Deliverable	enfoTech's Responsibility	LPB's Responsibility
5.1 LEMIR QA Version (integrated with FIS, FIMS & GEOS)	<ul style="list-style-type: none">▪ Enhance LEMIR based on approved SCD and LPB's comments from Iteration 2▪ Complete configuration▪ Perform internal QA▪ Deliver LEMIR QA version▪ Address LPB's comment on QA version	<ul style="list-style-type: none">▪ Verify installation, review and comment on the QA version.
5.2 GEOS QA Version for LPB Online Submittal Phase 3	<ul style="list-style-type: none">▪ Update GEOS for LPB online submittals based on approved SCD and LPB's comments from Iteration 2▪ Perform internal QA▪ Deliver GEOS QA version	<ul style="list-style-type: none">▪ Verify installation of GEOS QA version
5.3 FIMS QA Version for LPB Fee Management Phase 3	<ul style="list-style-type: none">▪ Expand FIMS – iteration 2 based on the approved SCD and LPB's comments from Iteration 2▪ Complete configuration▪ Perform internal QA▪ Deliver FIMS – Iteration #3 (QA version)	<ul style="list-style-type: none">▪ Verify installation of FIMS QA version
5.4 LEMIR System Review – Iteration 3 (4-Hour GoToMeeting session)	<ul style="list-style-type: none">▪ Prepare agenda for system review▪ Perform LEMIR QA version system walk through with EPD▪ Address LPB's comments	<ul style="list-style-type: none">▪ Approve meeting agenda▪ Coordinate SMEs to attend the workshop▪ Review LEMIR QA version and provide comments▪ Log comments to the project team website

3.1.6 Stage 6: User Acceptance Testing (UAT) and Pilot – Iteration 4**(A) Approach**

After LPB completes reviews of the QA version, enfoTech will address LPB's comments and issue a UAT version to allow LPB to begin User Acceptance Testing.

EnfoTech recommends a small scale **Pilot** with key testers to verify that the **Solution** has met all business processes approved in the System Configuration Document before initiating a full scale roll-out.

- Prior to delivering the UAT version of the Systems, enfoTech will perform internal testing based on the Test Plans approved by the LPB. All internal testing must pass the criteria described in the Test Plan before installing the UAT version at the enfoTech Data Center.
- Prior to the Pilot testing, enfoTech will deliver a User Acceptance Testing Plan to LPB
- If needed, LPB shall coordinate facilities to participate in the pilot.
- Issues from the UAT shall be logged into the Project Team Website for investigation, resolution and tracking.
- enfoTech will provide the LPB technical support via phone, GoToMeeting, and emails to review the system and test the system to ensure their requirements to go live are met. If any bugs with the system are found, they will be addressed at this time.
- Any issues will be properly addressed well before the system go-live.

**(B) Stage 6 Deliverables**

Deliverable	enfoTech's Responsibility	LPB's Responsibility
6.1 LEMIR Phase 3 Test Plan	<ul style="list-style-type: none">▪ Develop a test document for the final system (core plus customizations), which shall include:<ul style="list-style-type: none">○ LEMIR use cases○ GEOS online submittal use cases○ FIMS fee management use cases▪ Revise the Test Plan based on the LPB input▪ Finalize the Test Plan	<ul style="list-style-type: none">▪ Review Test Plan▪ Provide input on additions or modifications that need to be made to the Test Plan▪ Approve final Test Plan
6.2 LEMIR Phase 3 User Acceptance Testing (UAT) Plan Development	<ul style="list-style-type: none">▪ Deliver UAT Plan for LEMIR Phase 3 to LPB▪ Review LPB's comments and revise the plan▪ Deliver a final UAT Plan	<ul style="list-style-type: none">▪ Review the Plan, mark up comments and required modifications to the document▪ Approve final UAT Plan
6.3 LEMIR Abbreviated Training to Pilot Users (3-Hour GoToMeeting session)	<ul style="list-style-type: none">▪ Deliver abbreviate training to LPB pilot users via GoToMeeting▪ Assist LPB to start a Pilot	<ul style="list-style-type: none">▪ Attend the training
6.4 LEMIR Phase 3 User Acceptance Testing (UAT) – Round 1	<ul style="list-style-type: none">▪ Revise QA versions based on LPB's comments and deliver UAT versions▪ Perform technical support to complete the UAT Round 1▪ Manage reported problems on the project team website▪ Deliver system patches to address LPB's feedback from UAT Round 1	<ul style="list-style-type: none">▪ Test the solution based on the Test Plan▪ Review data migration▪ Log bugs found to the project team website▪ Test system patches
6.5 LEMIR Phase 3 User Acceptance Testing (UAT) – Round 2	<ul style="list-style-type: none">▪ Revise UAT – Round 1 versions to the UAT – Round 2 versions based on LPB's comments▪ Perform technical support to complete the UAT Round 2▪ Manage reported problems on the project team website▪ Deliver system patches to address LPB's feedback from UAT Round 2	<ul style="list-style-type: none">▪ Test the solution based on the Test Plan▪ Review data migration▪ Log bugs found to the project team website▪ Test system patches
6.6 LEMIR Phase 3 User Acceptance Testing (UAT) – Round 3	<ul style="list-style-type: none">▪ Revise UAT – Round 2 versions to the UAT – Round 3 versions based on LPB's comments▪ Perform technical support to complete the UAT Round 3▪ Manage reported problems on the project team website▪ Resolve all major issues prior to system Go-Live	<ul style="list-style-type: none">▪ Test the solution based on the Test Plan▪ Review data migration▪ Log bugs found to the project team website▪ Test system patches▪ Approve System for go-live

3.1.7 Stage 7: System Documentation, Training, and Roll-out Planning**(A) Approach**

After the UAT/Pilot, the Solution is ready for roll-out to the entire LPB for production use. EnfoTech will provide train-the-trainer end user training to prepare key testers with knowledge before system go-live.

(1) Training and Knowledge Transfer



enfoTech will develop a Training Plan and provide the necessary training to the LPB for effective utilization of the new systems. All trainings will be conducted onsite. EnfoTech will develop a draft training agenda and submit it to the LPB for comment prior to the training. The trainings shall include:

Training Class	Duration
LEMIr III End User training <ul style="list-style-type: none">▪ LEMIR III▪ GEOS for new submittals▪ FIMS interface	2 Day
Admin Training for LEMIR, GEOS, FIS and FIMS systems	1 Day

1. End User Training:

- **LEMIr III End User:** will be designed for LPB staff training to learn LEMIR features to support LPB business processes and data management practices. After the training, staff shall be able to use LEMIR to support LPB business processes and track data
- **GEOS End Users:** will be designed for train-the-trainer to convey system functions to LPB to provide support the regulated community users for online submittals (under GEOS)
- **FIMS End User Training:** will be designed for LPB staff to learn system functions to manage FIMS account information, fee charge, receive and reconcile payments and run balance check on each account.

2. Admin Training (knowledge transfer): will be designed for the supervisors and power users on the following topics:

- **LEMIr:** maintain reference data, templates, basic submittal and workflow configurations, and user security; understand major database structure and design concepts
- **GEOS:** maintain reference data, templates, basic submittal and workflow configurations, and user security; understand major database structure and design concepts
- **FIS:** understand major database structure and design concepts
- **FIMS:** maintain reference data, templates, and user security; understand major database structure and design concepts
- **Data exchange scenarios and mechanisms among LEMIR, GEOS, FIS and FIMS systems.**

(2) Documentations

The following documents will be delivered during the training stage:

- **Training Plan:** tailored to the Phase 3 LPB's business processes, and categorized by LPB business units.
- **LEMIr User Guide:** update LEMIR User Guide to cover all functions supported by LEMIR Phase 3
- **LEMIr Online Help:** Will be included with the System.
- **LEMIr Admin Guide:** One Admin Guide to cover administration of user account, security, system configurations, and data query
- **GEOS User Guide:** update GEOS User Guide to cover account registration and management, online submittal, submittal status tracking and correspondence with LPB Staff
- **FIMS User Guide:** update FIMS User Guide to cover account registration and management, account management, invoicing, payment data reconciliation and balance tracking processes for Solid Waste Fee Program

All documentation will be delivered to the LPB in electronic versions. System documentation will be updated if applicable when system upgrades are made. All system documentation that is pertinent to the operation of the system will also be available online.



(3) System Roll-Out Plan

The System Roll-Out (Transition) Plan shall consider a few factors including:

- LPB's Acceptance of the System functions after the Pilot/UAT
- Installation of pre-production release at enfoTech Data Center
- Procedures to switch over to the Phase 3 systems
- Successful verification of data migration
- Successful verification of LEMIR-FIMS data exchange
- Successful verification of LEMIR-GEOS data exchange

(B) Stage 7 Deliverables

Deliverable	enfoTech's Responsibility	LPB's Responsibility
7.1 System Documentations	<p>Deliver the following documentation incorporating LPB's comment:</p> <ul style="list-style-type: none">• LEMIR III System• GEOS Online Submittals for LEMIR Phase 3• FIMS Fee Management for LEMIR Phase 3	<ul style="list-style-type: none">▪ Review documentation, provide comments, approve documentation
7.2 Training Plan	<ul style="list-style-type: none">• Prepare training plan• Finalize the training plan	<ul style="list-style-type: none">▪ Review, provide comments, and approve training plan
7.3 End User Training (2-Day Onsite)	<ul style="list-style-type: none">• Deliver end user training for LEMIR, GEOS, FIMS, and FIS	<ul style="list-style-type: none">• Provide training facility and work stations to accommodate each user• Participate in training• Confirm delivery of training
7.4 System Admin Training (1-Day Onsite)	<ul style="list-style-type: none">• Deliver training for admin for knowledge transfer on LEMIR, GEOS, FIS, FIMS and data exchanges	<ul style="list-style-type: none">• Provide training facility and work stations to accommodate each user• Participate in training• Confirm delivery of training
7.5 Deliver Roll-out (transition) Plan	<ul style="list-style-type: none">▪ Draft Roll-out (transition) Plan for LPB review▪ Incorporate LPB comments and issue final Roll-out Plan	<ul style="list-style-type: none">▪ Review and provide comments on the Roll-out Plan▪ Approve Roll-out Plan

3.1.8 Stage 8: System Go-Live & Maintenance Support

(A) Approach

At least 5 days should be reserved for the LPB team members to browse through the system before allowing end-users to log into the system for production data entry.

After the LEMIR is in production, the system maintenance and support program will commence. EnfoTech will provide email, phone, and GoToMeeting support when necessary. An emergency deployment schedule will be implemented for any production show-stopping issues. Services included in the maintenance and support program shall include:

1. **System updates:** enfoTech will continue maintaining the Solution and all the customization and interface modules delivered to the LPB and provide new system updates to the LPB. In general, we will have two types of updates.
 - a. **Regular updates:** are on a 6-month release frequency. EnfoTech maintains a master list of the enhancement items and prioritizes them based on the critical nature and popularity of the user requests. The regular updates will include all of the issues approved for the release.



Updates will include: (1) a what's new document (including enfoTech's test results), and (2) revised documentation. All updates will be delivered to the LEMI Production server after LPB's review and approval.

- b. **Emergency Patches:** provided on an "as needed" basis; enfoTech may issue certain emergency patches to address critical issues reported by the client.
2. **Issue tracking and resolution:** We will provide a standard issue tracking procedure and use the project team web site to report the issues. Issue resolution will also be tracked on the project web site.
3. **Help Desk:** enfoTech will provide a Help Desk hot line to the client for reporting system related questions and issues. The Help Desk will serve as the 1st line of technical support for the end-users. When needed, GoToMeeting conference calls can be used to streamline our technical support service.

(B) Stage 8 Deliverables

Deliverable	enfoTech's Responsibility	LPB's Responsibility
8.1 Deliver Production-ready Systems	<ul style="list-style-type: none">▪ Deliver production-ready system, including:<ul style="list-style-type: none">○ LEMI○ GEOS○ FIMS▪ Execute data exchange between LEMI-GEOS, LEMI-FIS, and LEMI-FIMS▪ Execute final migration scripts provided by EPD▪ Verify installation	<ul style="list-style-type: none">▪ Review and verify the Production-ready system▪ Review and verify final migration package▪ Approve system for Go-Live
8.2 System Go-Live	<ul style="list-style-type: none">▪ Support for system Go-live for the following components:<ul style="list-style-type: none">○ LEMI○ GEOS○ FIMS	<ul style="list-style-type: none">▪ Log any issues to the team website to be resolved in parallel with production data entry

3.2 Project Deliverables

enfoTech will provide the following deliverables to the LPB in LEMI Phase 3.

Deliverable
Stage 1: Project Start-up, Planning and Management
1.1 A web-based project team website
1.2 Solution Installation in enfoTech Hosting environment
1.3 A project plan document
1.4 A project kickoff meeting to review the project plan
1.5 Host Bi-Weekly GoToMeeting conference calls (up to 10 months)
1.6 Monthly project reports (up to 10 months)
Stage 2: Requirements Verifications, System Design and Specifications
2.1 LEMI Orientation and Requirement Verification Workshop (3-Day Onsite)
2.2 LEMI Phase 3 System Configuration Document (SCD) (Version #1)
2.3 LEMI IT Architecture & Hosting Assessment Document
Stage 3: System Configuration and Customization Iteration 1 (Alpha)
3.1 LEMI Phase 3 System Configuration Document (SCD) (Version #2)
3.2 LEMI Configuration – Iteration 1



Deliverable
3.3 GEOS Online Submittals for LPB Phase 3 Configuration – Iteration 1
3.4 FIMS Fee Management for LPB Phase 3 Configuration – Iteration 1
3.5 LEMIR Onsite System Review – Iteration 1 (2-Day Onsite)
Stage 4: System Configuration and Customization Iteration 2 (Beta)
4.1 LEMIR Phase 3 System Configuration Document (SCD) (Version #3)
4.2 LEMIR Configuration – Iteration 2
4.3 GEOS Online Submittals for LPB Phase 3 Configuration – Iteration 2
4.4 FIMS Fee Management for LPB Phase 2 Configuration – Iteration 2
4.5 LEMIR System Review – Iteration 2 (4-Hour via GoToMeeting)
Stage 5: System Configuration and Customization Iteration 3 (QA)
5.1 LEMIR QA Version (integrated with FIS, FIMS & GEOS)
5.2 GEOS QA Version for LPB Online Submittal Phase 3
5.3 FIMS QA Version for LPB Fee Management Phase 3
5.4 LEMIR System Review – Iteration 3 (4-Hour GoToMeeting session)
Stage 6: User Acceptance Testing (UAT), Pilot – Iteration 4
6.1 LEMIR Phase 3 Test Plan
6.2 LEMIR Phase 3 User Acceptance Testing (UAT) Plan Development
6.3 LEMIR Abbreviated Training to Pilot Users (3-Hour GoToMeeting session)
6.4 LEMIR Phase 3 User Acceptance Testing (UAT) – Round 1
6.5 LEMIR Phase 3 User Acceptance Testing (UAT) – Round 2
6.6 LEMIR Phase 3 User Acceptance Testing (UAT) – Round 3
Stage 7: System Documentation, Training, and Roll-out Planning
7.1 System Documentations
7.2 Training Plan
7.3 End User Training (2-Day Onsite)
7.4 System Admin Training (1-Day Onsite)
7.5 Deliver Roll-out (transition) Plan
Stage 8: System Go-Live & Maintenance Support
8.1 Deliver Production-ready System
8.2 System Go-Live

3.3 Project Schedule

enfoTech will develop a draft Project Schedule at the project kick-off for LPB to review and comment. EnfoTech will work with LPB to finalize the Project Schedule and keep it current as the project evolves.



4. Project Cost

4.1 Phase 3 Cost Summary

LEMIR Phase 3 will encompass 71 project results listed below:

- 12 Online Submittals
- 6 Work Flows
- 13 Final Issuances
- 2 Inspection Types
- 2 Inspection Reports
- 4 Summary Reports
- 1 Fee programs
- System interfaces among LEMIR, GEOS, FIS, and FIMS.

enfoTech recommends a budget of \$ 501,292 for the LEMIR Phase 3 implementation.

Item	Total
1. LEMIR System <ul style="list-style-type: none">▪ 6 business processes, 12 submittals, 2 inspection types, 4 reports, 1 fee program	\$188,515
2. GEOS Online Submittal <ul style="list-style-type: none">▪ 12 online submittals	\$96,065
3. FIMS Fee Management <ul style="list-style-type: none">▪ 1 New Fee Program: Solid Waste fee program	\$27,985
4. Implementation Services: end-to-end Implementation Services to Bring LEMIR III to Production <ul style="list-style-type: none">▪ Project planning and management▪ Requirements verifications▪ Design specifications▪ Iterative system reviews▪ Training & Documentation	\$188,727
Total:	\$501,292

Cost Breakdown by Business Unit and System

	Solid Waste	Total
GEOS	\$ 96,065	\$ 96,065
LEMIR	\$ 188,515	\$ 188,515
FIMS	\$ 27,985	\$ 27,985
Implementation	\$ 188,727	\$ 188,727
Total:		\$ 501,292



4.2 Cost Breakdown by Deliverable

The following table provides a cost breakdown by project deliverable.

Products & Services	Cost
Stage 1: Project Start-up, Planning and Management	
1.1 A web-based project team website for LEMIR Phase 3 Project Members	\$0
1.2 A project plan document	\$930
1.3 Project kickoff meeting to review project plan	\$465
1.4 Host Bi-weekly GoToMeeting conference calls (up to 10 months)	\$15,300
1.5 Monthly project reports (up to 10 months)	\$4,200
Stage 2: Requirements Verifications, System Design and Specifications	
2.1 LEMIR Orientation and Requirement Verification Workshop (3-Day Onsite)	\$19,608
2.2 LEMIR Phase 3 System Configuration Document (SCD) (Version #1)	\$39,400
2.3 LEMIR IT Architecture & Hosting Assessment Document	\$1,425
Stage 3: System Configuration and Customization Iteration 1 (Alpha)	
3.1 LEMIR Phase 3 System Configuration Document (SCD) (Version #2)	\$22,720
3.2 LEMIR Configuration – Iteration 1	\$77,705
3.3 GEOS Online Submittals for LPB Phase 3 Configuration – Iteration 1	\$49,215
3.4 FIMS Fee Management for LPB Phase 3 Configuration – Iteration 1	\$5,600
3.5 LEMIR Onsite System Review – Iteration 1 (2-Day Onsite)	\$14,922
Stage 4: System Configuration and Customization Iteration 2 (Beta)	
4.1 LEMIR Phase 3 System Configuration Document (SCD) (Version #3)	\$12,320
4.2 LEMIR Configuration – Iteration 2	\$27,705
4.3 GEOS Online Submittals for LPB Phase 3 Configuration – Iteration 2	\$9,215
4.4 FIMS Fee Management for LPB Phase 2 Configuration – Iteration 2	\$5,600
4.5 LEMIR System Review – Iteration 2 (4-Hour via GoToMeeting)	\$3,660
Stage 5: System Configuration and Customization Iteration 3 (QA)	
5.1 LEMIR QA Version (integrated with FIS, FIMS & GEOS)	\$27,705
5.2 GEOS QA Version for LPB Online Submittal Phase 3	\$9,215
5.3 FIMS QA Version for LPB Fee Management Phase 3	\$5,600
5.4 LEMIR System Review – Iteration 3 (4-Hour GoToMeeting session)	\$3,660
Stage 6: User Acceptance Testing (UAT), Pilot – Iteration 4	
6.1 LEMIR Phase 3 Test Plan	\$13,320
6.2 LEMIR Phase 3 User Acceptance Testing (UAT) Plan Development	\$1,860
6.3 LEMIR Abbreviated Training to Pilot Users (3-Hour GoToMeeting session)	\$2,745
6.4 LEMIR Phase 3 User Acceptance Testing (UAT) – Round 1	\$31,260
6.5 LEMIR Phase 3 User Acceptance Testing (UAT) – Round 2	\$31,260
6.6 LEMIR Phase 3 User Acceptance Testing (UAT) – Round 3	\$21,250
Stage 7: System Documentation, Training, and Roll-out Planning	
7.1 System Documentations	\$8,400
7.2 Training Plan	\$2,730



Products & Services	Cost
7.3 End User Training (2-Day Onsite)	\$10,988
7.4 System Admin Training (1-Day Onsite)	\$6,744
7.5 Deliver Roll-out (transition) Plan	\$3,330
Stage 8: System Go-Live & Maintenance Support	
8.1 Deliver Production-ready System	\$6,741
8.2 System Go-Live	\$4,494
	Total Cost: <u>\$501,292</u>

4.3 Payment Schedule

enfoTech proposes a deliverable-based payment schedule, tied to the "Cost" column listed in the cost breakdown Table. enfoTech will submit a monthly invoice including deliverables completed and approved. enfoTech standard payment terms are 15-day net from the invoice date.



5. Appendix

5.1 Appendix A. Solid Waste Facilities Report

County	Permit Number	Facility Name	Operation Status	Facility Type Description	Dominion	Facility Address	City	State	Zip Code	Facility Manager Name	Facility Manager Telephone No	Owner/Contact Name	Owner/Contact Telephone No
Appling	001-004D(LI)	Plant Hatch PIL2	Operating	Other	Private Industrial	plant property	mcintyre	G A	315 13	Pete H Wells	(888) 888-8888	Michael Dean "Mickey" Perry	(205) 992-6994
Appling	001-006D(SL)	Appling Co - Roaring Creek PH 1&2 (SL)	Operating	Construction and Demolition Landfill	Public	8595 east river road	baxley	G A	315 13	Jeffrey McLellan	(912) 367-8178	Lewis Parker	(912) 367-8100
Atkinson	002-009D(M SWL)	Atkinson Co - SR 50 MSWL	Operating	Municipal Solid Waste Landfill	Public	64 arthur davis jr drive	willacoochee	G A	316 42	STEVE CORBITT	(912) 534-5972	Tommy Guthrie	(912) 422-7258
Baldwin	005-017D(SL)	Baldwin Co - Union Hill Ch Rd, Ph 3 (MSWL)	Operating	Municipal Solid Waste Landfill	Public	union hill ch rd next to ph 2	gordon	G A	310 61	Ricky Arp	(478) 445-4347	Ralph McMullen	(478) 445-4791
Banks	006-009D(M SWL)	R&B Landfill	Operating	Municipal Solid Waste Landfill	Private Commercial	610 frank bennett road	homer	G A	305 47	Charlie Law	(706) 677-2650	Peter Stocklin	(706) 677-2650
Barrow	007-020D(SL)	Republ ic Waste - Oak Grove SR 324	Operating	Municipal Solid Waste Landfill	Private Commercial	967 carl bethlehem road	winder	G A	306 80	Nick Mootz	(678) 290-7373	Andy Keith	(770) 868-4430
Bartow	008-007D(LI)	Chemical Product s Corp - Old Mill Rd (LI)	Operating	Industrial Landfill	Private Industrial	s. tennessee st & old mill rd	cartersville		301 20			Tim McCown	
Bartow	008-008D(SL)	Bartow Co - SR 294 Emerson (SL) Ph 1 (C&D)	Operating	Construction and Demolition Landfill	Public	allatoona dam road	cartersville	G A	301 20	G. Ripley Connor	(770) 387-5145	Clarence Brown	(770) 387-5030
Bartow	008-016D(SL)	Bartow Co - SR 294 Emerson MSWL PH 2&3	Operating	Municipal Solid Waste Landfill	Public	40 allatoona dam road	emerson	G A	301 37	G. Ripley Connor	(770) 387-5145	Clarence Brown	(770) 387-5030
Bartow	008-018D(LI)	Georgia Power - Plant Bowen	Operating	Industrial Landfill	Private Industrial	317 covered bridge road sw	cartersville	G A	301 20-5907	J. Tim Banks	(770) 606-6411	Timothy A. Earl, P.E.	(404) 506-7686



5.2 Appendix B. Permits Issued Report

Number	Permit Number	Facility Name	Permit Issue Date	Application Submitted	No. of Days for Review
1	1650-13	TIN INCORPORATED, A WHOLLY OWNED SUBSIDIARY OF INTERNATIONAL PAPER COMPANY - TIN INC. BORROW PIT	01/09/13	10/01/12	100
2	1730-12	SOUTHEASTERN PRIMARY MINERALS, LLC - TUDOR MINE	01/11/13	07/30/12	165
3	1821-13	SOUTHERN IONICS, INC. MISSION MINE SOUTH	02/04/13	06/23/12	226
4	1822-13	SOUTHERN IONICS, INC. MISSION MINE NORTH	02/04/13	06/23/12	226
5	582-13	THIELE KAOLIN CO. - HALL HARRIS MINE	02/13/13	10/01/12	135
6	029-13	BASF CORPORATIN - WASHINGTON MINE	02/19/13	08/24/12	179
7	031-13	BASF CORPORATION - KLONDIKE MINE	02/19/13	08/24/12	179
8	1829-13	TREVOR STAFFORD CONSTRUCTION, STAFFORD PIT NO. 2	02/19/13	08/27/12	176
9	1831-13	ALLSTATE HOME BUILDERS, INC	02/20/13	10/05/12	138
10	1835-13	CAMDEN COUNTY BOARD OF COMMISSIONERS SR 110 MSW LANDFILL MINE	02/26/13	01/22/13	35
11	1834-13	DOUGHERTY CO. BRD, OF COMMISSIONERS - DOUGHERTY COUNTY SURFACE MINE	03/22/13	02/26/13	24
12	1832-13	ARCILLA MINING & LAND COMPANY - C.M. SHEPHERD 2 MINE	04/09/13	12/07/12	123
13	1027-13	THIELE KAOLIN COMPANY - BOATRIGHT MINE	04/19/13	03/25/13	25
14	1502-13	RIVER SAND	05/01/13	10/26/12	187
15	1836-13	Oxford	05/03/13	03/29/13	35
16	1838-13	RPA 113 LLC	06/04/13	04/23/13	42



5.3 Appendix C. Annual Remaining Capacity Report

County	Permit Number	Facility Name	Facility Type Description	Dominion	FY Reporting Year	Remaining Capacity (CY)	Average Daily Tons	Rate Of Fill (CYD)	Years Remaining	Estimated Fill Date	Waste Type
Appling	001-006D(SL)	Appling Co - Roaring Creek PH 1&2 (SL)	Construction and Demolition Landfill	Public	2012	424,951	25	52	34	7/1/2046	C&D
Atkinson	002-009D(MSWL)	Atkinson Co - SR 50 MSWL	Municipal Solid Waste Landfill	Public	2012	3,057,780	195	241	51	4/29/2063	MSW L
Atkinson	002-009D(MSWL)	Atkinson Co - SR 50 MSWL	Municipal Solid Waste Landfill	Public	2012	703,455	103	169	17	2/28/2029	C&D
Baldwin	005-017D(SL)	Baldwin Co - Union Hill Ch Rd, Ph 3 (MSWL)	Municipal Solid Waste Landfill	Public	2012	21,000	0	0	0		MSW L
Banks	006-009D(MSWL)	Chambers R & B Landfill Site #2	Municipal Solid Waste Landfill	Private Commercial	2012	15,235,907	1651	2201	24	2/23/2036	MSW L
Barrow	007-020D(SL)	Republic Waste - Oak Grove SR 324	Municipal Solid Waste Landfill	Private Commercial	2012	8,988,688	1295	1566	20	8/1/2032	MSW L
Bartow	008-008D(SL)	Bartow Co - SR 294 Emerson (SL) Ph 1 (C&D)	Construction and Demolition Landfill	Public	2012	10,400	0	2	81	9/15/2093	C&D
Bartow	008-016D(SL)	Bartow Co - SR 294 Emerson MSWL PH 2&3	Municipal Solid Waste Landfill	Public	2012	669,000	275	417	6	4/15/2018	MSW L



5.4 Appendix D. Tonnage Totals by Quarter Report

County	Facility Name	Permit Number	Reporti ng Year	1	2	3	4	Tonnage Reported
Appling	Appling Co - Roaring Creek PH 1&2 (SL)	001-006D(SL)	13	553.92	679.89	671.15	568.08	2,473.04
Atkinson	Atkinson Co - SR 50 MSWL	002-009D(MSWL)	13	16,746.78	20,594.66	18,532.89	18,413.02	74,287.35
Baldwin	Baldwin Co - Union Hill Ch Rd, Ph 3 (MSWL)	005-017D(SL)	13	0.07	0.06	0.06	0.07	0.26
Banks	R&B Landfill	006-009D(MSWL)	13	106,706.10	117,417.22	117,218.87	109,733.71	451,075.90
Barrow	Republic Waste - Oak Grove SR 324	007-020D(SL)	13	81,685.47	98,472.11	98,980.40	92,759.18	371,897.16
Bartow	Bartow Co - SR 294 Emerson (SL) Ph 1 (C&D)	008-008D(SL)	13	106.14	48.73	22.30	13.06	190.23
Bartow	Bartow Co - SR 294 Emerson MSWL PH 2&3	008-016D(SL)	13	18,911.73	23,824.61	28,573.08	24,780.61	96,090.03
Ben Hill	Fitzgerald, Kiochee Church Rd, Ph.2	009-005D(SL)	13	980.57	1,666.45	69.38	181.28	2,897.68
Bibb	Macon - Walker Rd Ph 2 (SL)	011-017D(SL)	13	18,244.08	21,224.32	18,406.16	14,702.56	72,577.12
Bulloch	Ellis Wood Contracting, Inc.	016-013P(INC)	13	144.00	24.00	60.00	72.00	300.00
Burke	Burke Co - Clarke Rd (SL)	017-002D(SL)	13	5,076.35	5,258.55	5,612.13	4,977.14	20,924.17
Butts	Republic Services - Pine Ridge Recycling (MSWL)	018-008D(MSWL)	13	231,118.87	229,664.60	253,917.34	239,998.39	954,699.20
Camden	Camden Co - S.R. 110 C/D/I Waste Landfill	020-019D(C&D)	13	10,098.28	10,368.78	23,127.39	17,385.65	60,980.10
Camden	Camden Co-SR110 MSWL	020-017D(MSWL)	13	24,626.85	25,738.69	26,191.21	28,039.00	104,595.75
Candler	Candler Co-SR 121 Phase 2 MSWL	021-006D(MSWL)	13	1,162.64	1,388.87	1,515.73	1,493.98	5,561.22
Charlton	Chessier Island Road Landfill, Inc. MSWL	024-006D(SL)	13	142,380.83	171,219.61	213,778.77	226,748.10	754,127.31



5.5 Appendix E. Templates for Solid Waste Application Forms

5.5.1 S3. Application for Solid Waste Handling Permit, Request for Site Suitability

Send completed application to:

Environmental Protection Division, Solid Waste Management Program
4244 International Parkway, Suite 104
Atlanta, GA 30354-3902

EPD Use Only

County: _____

Name: _____

Application for Solid Waste Handling Permit Request for Site Suitability (Please type or print)

I. APPLICANT INFORMATION

Name:

Address:

Phone:

City:

State:

ZIP Code:

Authorized Official:

Title:

Mailing Address:

Phone:

City:

State:

ZIP Code:

Signature:

Date: Click here to enter a date.

II. OPERATION TYPE: Only check boxes for the operation(s) for which you will be responsible

- A. Processing Baling Composting Shredding Materials Recovery Facility
 Other (please list)
- B. Disposal (site suitability request must be accompanied by written zoning confirmation and a site assessment report prepared in accordance with Chapter 391-3-4-.05)
 Municipal Solid Waste Landfill Construction & Demolition Landfill
 Thermal Treatment Inert Landfill
 Commercial Industrial Waste Disposal Facility (describe types of waste on a separate sheet)
 Private Industry Solid Waste Disposal Facility (describe types of waste on a separate sheet)

Property for Processing/Disposal is: Owned Leased (please complete owner details below)

Property Owner (if leased):

Address:

Phone:

City:

State:

ZIP Code:

III. DESCRIPTION OF OPERATION: Briefly describe the general nature of the proposed operation**IV. TYPE OF APPLICATION**

- New Permit Major Modification to Existing Permit Transfer of Permit Special Solid Waste



V. AREAS SERVED: If the facility is a regional landfill or a landfill serving multiple counties, list the municipalities and/or counties to be served

VI. OTHER PERMITS: List any other *environmental* permits being applied for in relation to this operation

VII. LOCATION OF OPERATION: Describe below **and attach** a street or highway map indicating the site/facility location

Latitude: _____ ° _____ ' _____ "

Longitude: _____ ° _____ ' _____ "

VIII. OWNERS: List all owners of the facility (defined as holding a 5% or greater share)

IX. APPLICANT DETAILS: This section must be completed by all applicants

A.	Yes	No
(1) Has the applicant, or if the applicant is a corporation, partnership, or association, has any officer, director, manager, or shareholder of five percent or more of stock financial interest in the corporation, partnership, or association intentionally misrepresented or concealed any material fact in the application submitted to the director?	<input type="checkbox"/>	<input type="checkbox"/>
(2) Has the applicant, or if the applicant is a corporation, partnership, or association, has any officer, director, manager, or shareholder of five percent or more of stock financial interest in the corporation, partnership, or association obtained or attempted to obtain the permit by misrepresentation or concealment?	<input type="checkbox"/>	<input type="checkbox"/>
(3) Has the applicant, or if the applicant is a corporation, partnership, or association, has any officer, director, manager, or shareholder of five percent or more of stock financial interest in the corporation, partnership, or association been convicted by final judgment, and all appeals have been exhausted, in the State of Georgia or any federal court of any felony involving moral turpitude within three years immediately preceding the application for a permit?	<input type="checkbox"/>	<input type="checkbox"/>
(4) Has the applicant, or if the applicant is a corporation, partnership, or association, has any officer, director, manager, or shareholder of five percent or more of stock financial interest in the corporation, partnership, or association been convicted of any violations of any laws punishable as a felony in any state or federal court within five years preceding the application for a permit?	<input type="checkbox"/>	<input type="checkbox"/>
(5) Has the applicant, or if the applicant is a corporation, partnership, or association, has any officer, director, manager, or shareholder of five percent or more of stock financial interest in the corporation, partnership, or association knowingly, willfully, and consistently violated the prohibitions specified in Code Section 12-8-30.7?	<input type="checkbox"/>	<input type="checkbox"/>
(6) Has the applicant, or if the applicant is a corporation, partnership, or association, has any officer, director, manager, or shareholder of five percent or more of stock financial interest in the corporation, partnership, or association been adjudicated in contempt of any court order enforcing any federal environmental laws or any environmental laws of the State of Georgia within five years preceding the application for a permit?	<input type="checkbox"/>	<input type="checkbox"/>

B. On a separate sheet, please provide detailed explanations for each question above answered "yes."

C. If the owner and/or operator (defined as holding a 5% or greater share) of the facility is other than the applicant, the owner and/or operator must also submit the information required in this section.

X. SIGNATURES

Applicant Signature:



Sworn to and subscribed before me this _____ day of _____, 20_____.

Notary Public:

My commission expires: Click here to enter a date.

5.5.2 S4. CCR Unit - Application for Solid Waste Handling Permit

Send completed application to:

Environmental Protection Division, Solid Waste Management Program
4244 International Parkway, Suite 104
Atlanta, GA 30354-3902

County: _____

Facility Name: _____

CCR Unit - Application for Solid Waste Handling Permit (Please type or print)

I. APPLICANT INFORMATION

Owner's Name or Registered Corporation Name:

Facility Address: Phone:

City: State: ZIP Code:

Authorized Official: Title:

Mailing Address: Phone:

City: State: ZIP Code:

Email Address: Facility CCR Website(s):

II. PROPERTY DETAILS: Complete below and attach a street or highway map indicating the site/facility location. Application must be accompanied by written zoning confirmation.

County: City:

Co-ordinates (in decimal degrees, near facility center):

Property for Processing/Disposal is: Owned Leased (please complete owner details below)

Property Owner (if leased):

Address: Phone:

City: State: Zip:

III. APPLICATION TYPE: Please check only one box. Submit a separate application if more than one type is needed.



- A. New CCR Unit
 New CCR Landfill New Surface Impoundment
- B. Major Modification to Existing Solid Waste Handling Permit:
 Active CCR Landfill Inactive CCR Landfill
- C. Existing Impoundment Subject to Rule 391-3-4-.10
 Active Surface Impoundment Inactive Surface Impoundment
 NPDES-CCR Surface Impoundment Dewatered Surface Impoundment
- D. Other _____

Permit required for:

- A. Construction and/or Operation
B. Closure (CCR In-Place)
C. Closure (CCR Removed)

IV. OWNERS: List all owners of the facility (defined as holding a 5% or greater share). All owners listed below must complete the Supplemental Form for O.C.G.A. 12-8-23.1(a)(3)(B)

V. SIGNATURE

Authorized Official's Signature:

Date:

Sworn to and subscribed before me this _____ day of _____, 20____.

Notary Public:

My commission expires:



5.5.3 S5. Construction and Demolition (C&D) Materials Recycling Report

Construction and Demolition (C&D) Materials Recycling Report

{ Please type or print clearly }

Solid Waste Permit Number _____ Reporting Year _____

Reporting Quarter Jan-Mar Apr-Jun Jul-Sep Oct-Dec

Operator Name _____

Site Name _____

Site Address _____

Scales On-site Off-site

C&D Materials	End Use (e.g., road construction, boiler fuel, soil amendment, compost, manufacturing feedstock, etc.)	Tons Recycled
Carpet		
Clean wood (not painted or stained)		
Concrete		
Drywall		
Masonry		
Metals		
Plastics		
Roofing (including asphalt shingles)		
Soils		
Other (please list)		
Other (please list)		
		Total

Please return completed form to:

Tamara Fischer
Solid Waste Management Program / Land Branch
4244 International Pkwy, Ste 104
Atlanta, GA 30354

Ph: 404-362-2692
Fax: 404-362-2580
Email: tamara.fischer@dnr.state.ga.us



5.5.4 S6. Request for Minor Modification To Solid Waste Handling Permit

DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

REQUEST FOR MINOR MODIFICATION TO
SOLID WASTE HANDLING PERMIT

Instructions This form must accompany all requests by the Permittee requiring a minor modification for the subject facility. Attached modifications of the Design and Operation (D&O) Plan must be factual and complete. This form and supporting documents must be submitted directly to the EPD Regional office to which the facility is assigned. For modifying a D&O Plan, please include three (3) copies of all pertinent sheets. **Follow-up submittals require the Permittee to submit a new request form.**

APPLICANT TO COMPLETE THE REVERSE SIDE

FOR EPD USE ONLY

Official Facility Name _____

Permit No. _____ Modification Type _____

Review Deadline Date _____

Received By	Date	Comments*
-------------	------	-----------

Reviewed By	Date	Comments*
-------------	------	-----------

Action By	Date	Comments*
-----------	------	-----------

*Disposition: Approved/Denied/Incomplete

Reply to Appropriate EPD District Office

- | | |
|---|--|
| 1 Georgia EPD Mountain District
P.O. Box 3250
Cartersville, Georgia 30120
(770) 387-4900
ATTN: Mr. James Cooley, Mgr. | 5 Georgia EPD Coastal District
400 Commerce Center Drive
Brunswick, Georgia 31523-8251
(912) 264-7284
ATTN: Mr. Bruce Foisy, Mgr. |
| 2 Georgia EPD West Central District
2640 Shurling Drive
Macon, Georgia 31202
(478) 751-6612
ATTN: Mr. Todd Bethune, Mgr. | 6 Georgia EPD Southwest District
2024 Newton Road
Albany, Georgia 31708
(229) 430-4144
ATTN: Ms. Lisa Myler, Mgr. |
| 3 Georgia EPD Northeast District
745 Gaines School Road
Athens, Georgia 30605
(706) 369-6376
ATTN: Mr. Derrick Williams, Mgr. | NOTE: All minor modifications for private industrial facilities except for those facilities located in the Coastal District should be directed to:
Georgia Environmental Protection Division
Solid Waste Management Program
4244 International Parkway, Suite 104
Atlanta, Georgia 30354
(404) 362-2692
ATTN: Solid Waste Management Program |
| 4 Georgia EPD East Central District
3524 Walton Way Ext.
Augusta, GA 30909
(706) 667-4343
ATTN: Mr. Jeff Darley, Mgr. | |



FACILITY _____ PERMIT NO. _____

Pursuant to the requirements of the Georgia Comprehensive Solid Waste Management Act, O.C.G.A. 12-8-20, *et seq.*, and the Rules of the Georgia Department of Natural Resources, Chapter 391-3-4-.02(4), Solid Waste Management, both as amended, the undersigned hereby:

- 1 Requests a minor modification as represented in the attached modified D&O Plan, and/or supporting documents;
- 2 Certifies that the Permittee is the rightful owner of the facility and can verify that this proposed modification shall conform to all local zoning/land use ordinances; and
- 3 Certifies that the information provided in or submitted by the facility Permittee as part of this request form and modified D&O Plan is true and correct, and if approved, the facility Permittee agrees to comply with provisions of this minor modification to the D&O Plan, provisions of the Act Rules, and conditions of the Permit.

I PERMITTEE _____

ADDRESS _____ PHONE _____

CITY _____ STATE _____ ZIP _____

AUTHORIZED OFFICIAL _____

SIGNATURE _____ DATE _____

TITLE _____

MAILING ADDRESS _____

CITY _____ STATE _____ ZIP _____

II Briefly describe the exact changes to be made to the permit conditions and explain why the change is needed.

III Attached documents include:

SWM-FM Request for Minor Modification to Solid Waste Handling Permit

**5.5.5 S7. Solid Waste Handling Permit Supplemental Form****Send with completed application to:**

Environmental Protection Division, Solid Waste Management Program
4244 International Parkway, Suite 104
Atlanta, GA 30354-3902

County: _____

Facility: _____

**Solid Waste Handling Permit
Supplemental Form for O.C.G.A. 12-8-23.1(a)(3)(B)**
(Please type or print)

I. INFORMATION: This form must be completed by each owner, or an authorized official of a corporation, holding a 5% or greater ownership share. This form must be notarized.

Name of Facility Applying for Solid Waste Handling Permit:

Owner's Name or Registered Corporation Name:

Authorized Official:	Title:
----------------------	--------

Mailing Address:	Phone:
------------------	--------

City:	State:	ZIP Code:
-------	--------	-----------

Email Address:

A.	Yes	No
(1) Has the applicant, or if the applicant is a corporation, partnership, or association, has any officer, director, manager, or shareholder of five percent or more of stock financial interest in the corporation, partnership, or association intentionally misrepresented or concealed any material fact in the application submitted to the director?	<input type="checkbox"/>	<input type="checkbox"/>
(2) Has the applicant, or if the applicant is a corporation, partnership, or association, has any officer, director, manager, or shareholder of five percent or more of stock financial interest in the corporation, partnership, or association obtained or attempted to obtain the permit by misrepresentation or concealment?	<input type="checkbox"/>	<input type="checkbox"/>
(3) Has the applicant, or if the applicant is a corporation, partnership, or association, has any officer, director, manager, or shareholder of five percent or more of stock financial interest in the corporation, partnership, or association been convicted by final judgment, and all appeals have been exhausted, in the State of Georgia or any federal court of any felony involving moral turpitude within three years immediately preceding the application for a permit?	<input type="checkbox"/>	<input type="checkbox"/>
(4) Has the applicant, or if the applicant is a corporation, partnership, or association, has any officer, director, manager, or shareholder of five percent or more of stock financial interest in the corporation, partnership, or association been convicted of any violations of any environmental laws punishable as a felony in any state or federal court within five years preceding the application for a permit?	<input type="checkbox"/>	<input type="checkbox"/>
(5) Has the applicant, or if the applicant is a corporation, partnership, or association, has any officer, director, manager, or shareholder of five percent or more of stock financial interest in the corporation, partnership, or association knowingly, willfully, and consistently violated the prohibitions specified in Code Section 12-8-30.7?	<input type="checkbox"/>	<input type="checkbox"/>
(6) Has the applicant, or if the applicant is a corporation, partnership, or association, has any officer, director, manager, or shareholder of five percent or more of stock financial interest in the corporation, partnership, or association been adjudicated in contempt of any court order enforcing any federal environmental laws or any environmental laws of the State of Georgia within five years preceding the application for a permit?	<input type="checkbox"/>	<input type="checkbox"/>

B. On a separate sheet, please provide detailed explanations for each question above answered "yes."

Signature:

Date:



Sworn to and subscribed before me this _____ day of _____, 20____.

Notary Public:

My commission expires:

5.5.6 S8. Notification of Permit-by-Rule Operation

**Send completed form to:**

Environmental Protection Division, Solid Waste Management Program
4244 International Parkway, Suite 104
Atlanta, GA 30354-3902

EPD Use Only

County: _____

PBR#: _____

Notification of Permit-by-Rule Operation			
I. APPLICANT INFORMATION			
Facility Name: Click here to enter text.		<input type="checkbox"/> Transfer of Ownership	
Facility Address/Location: Click here to enter text.			
City: Click here to enter text.	County: Click here to enter text.	State: Click here to enter text.	ZIP Code: Click here to enter text.
Owner/Operator: Click here to enter text.			
Email: Click here to enter text.		<input type="checkbox"/> New/Updated Contact Information	
Address: Click here to enter text.		Phone: Click here to enter text.	
City: Click here to enter text.	State: Click here to enter text.	ZIP Code: Click here to enter text.	
Authorized Representative: Click here to enter text.		<input type="checkbox"/> New/Updated Contact Information	
Email: Click here to enter text.		Title: Click here to enter text.	
Address: Click here to enter text.		Phone: Click here to enter text.	
City: Click here to enter text.	State: Click here to enter text.	ZIP Code: Click here to enter text.	
II. OPERATION TYPE: Only check boxes for the operation(s) for which you will be responsible.			
<input type="checkbox"/> Collection <input type="checkbox"/> Transfer Station <input type="checkbox"/> On-site Processing or Thermal Treatment <input type="checkbox"/> Class 2 Composting Facility			
<input type="checkbox"/> Yard Trimmings Landfill <input type="checkbox"/> Other: Click here to enter text.			
Facility is: <input type="checkbox"/> Private use only <input type="checkbox"/> Public (open to the general public)			
III. SOLID WASTE HANDLED: Check all applicable types.			
<input checked="" type="checkbox"/> Municipal <input type="checkbox"/> Construction & Demolition <input type="checkbox"/> Industrial <input type="checkbox"/> Compost Category A and B Feedstocks			
<input type="checkbox"/> Inert <input type="checkbox"/> Biomedical <input type="checkbox"/> Yard Trimmings			
IV. DESCRIPTION OF OPERATION: Briefly describe the general nature of the proposed operation and list specific solid waste to be disposed, processed or treated. For yard trimmings landfills only, please attach a site survey map that shows the disposal area to be no more than five acres and not located within 200 linear feet of any property line or enclosed structure.			
Click here to enter text.			

**V. STATUS OF OPERATION**

Existing Proposed **Projected start-up date:** Click here to enter a date.

VI. AREAS SERVED: List the counties to be served.

Click here to enter text.

VII. LOCATION OF OPERATION: If this notification is for a transfer station, on-site processing, thermal treatment, wastewater treatment, class 2 composting facility, thermal treatment plant sludge disposal operation, or yard trimmings landfill, you must attach a street or highway map indicating the location of the site/facility.

Latitude: Click here to enter text.

Longitude: Click here to enter text.

PLEASE NOTE: Incomplete notifications will be returned. Operations must meet the conditions in paragraphs 2 and 3 of section .06 and paragraph (5)(b) of section .16 for class 2 composting facilities in the Rules for Solid Waste Management in order to operate under the permit-by-rule provision.

SIGNATURE: _____

DATE: Click here to enter a date.



5.5.7 S9. Permit-by-Rule Waste Disposal Report

RETURN TO

DATA ENTRY _____

PERMIT-BY-RULE WASTE DISPOSAL REPORT
LAND PROTECTION BRANCH
4244 INTERNATIONAL PARKWAY, SUITE 104
ATLANTA, GEORGIA 30354
(404) 362-2692
Fax: (404) 362-2580 or
E-mail: tamara.fischer@dnr.state.ga.us

PERMIT-BY-RULE WASTE DISPOSAL REPORT

Please complete this section.**Type or print clearly.**

PBR Number: _____ Reporting Year: _____

Reporting Quarter:
 Jan-Mar
 Apr-June
 July-Sept
 Oct-Dec

Operator's Name: _____

Address: _____

Disposal Site Name: _____

Measuring Method:

On Site Scales _____ Off Site Scales: _____ Representative sample _____

Origin of Waste: _____ Tons Disposed: _____

*Please provide name of County or Incorporated Municipality. Do not include individuals or companies.

TOTAL _____ Tons

Page _____ of _____

s:\land\landddocs\solidwaste\forms\permit-by-rule waste disposal report

**5.5.8 S10. Solid Waste Disposal Report (Quarterly Tonnage Report)**RETURN TO:

SOLID WASTE DISPOSAL REPORT
LAND PROTECTION BRANCH
4244 INTERNATIONAL PARKWAY
SUITE 104
ATLANTA, GEORGIA 30354
(404) 362-2537

DATA ENTRY:**SOLID WASTE DISPOSAL REPORT**

Please complete this section.

Type or Print

Solid Waste Permit Number: _____

Reporting Year: _____

Reporting
Quarter:

- January - March
- April - June
- July - September
- October - December

Operator's Name: _____

Address: _____

Disposal Site Name: _____

Operator's Phone Number: _____

Measuring Method:

On-Site Scales

Off-Site Scales

Representative Sample

Origin of Waste:^{*}

Tons Disposed



***Please note either County (C), or**

Incorporated Municipality (1). Do Not include individuals or companies.

Total 0 Tons

Page _____ of _____

Origin of Waste:*

Grand Total 0
Tons Disposed





Page Total 0 Tons
of



5.5.9 S11. Remaining Capacity Report

Data Entry _____

RETURN TO:
REMAINING CAPACITY REPORT
ENVIRONMENTAL PROTECTION DIVISION
LAND PROTECTION BRANCH
4244 INTERNATIONAL PARKWAY, SUITE 104
ATLANTA, GEORGIA 30354
FOR ASSISTANCE CALL: (404) 362-2692

REMAINING CAPACITY REPORT

PERMIT HOLDER: _____
ADDRESS: _____
TELEPHONE NO.: _____
SITE NAME: _____
EPD PERMIT NUMBER: _____

CALCULATED	
I. SURVEY DATA A Date of topographic survey B Remaining Volume (Available Fill Volume Based on Survey) C Estimated Percent by Volume of Total Used by Cover Soil D Net Remaining Waste Volume (Line B Reduced by Line C)	_____ cy _____ % → _____ cy
II. AMOUNT OF SOLID WASTE DISPOSED E Tons Per Day Received for Disposal F Total Operational Days Per Year G Total Estimated Annual Tons Disposed	_____ ton/day _____ days → _____ tons
III. WASTE PLACEMENT H Estimated Waste Compaction Density I Estimated Waste Compaction Density J Net Volume Used Per Day (Line E Divided by Line I) K Net Volume Used Per Year (Line G Divided by Line I)	1,000 lbs.cy 0.50 tons.cy → _____ cy day _____ cy yr
IV. REMAINING CAPACITY (SITE LIFE) L Remaining Capacity (Line D Divided by Line J) M Remaining Capacity (Line D Divided by Line K) N Estimated Date of Completion for Facility	_____ days → _____ years
ADDITIONAL INFORMATION _____ _____ _____	

I hereby certify the above determinations were performed under my direct supervision.

Registered Professional Engineer
Georgia Registration No. _____
Date _____

Permit Holder _____
Date _____

(seal)

**5.5.10 S12. Periodic Methane Monitoring Report****Periodic Methane Monitoring Report**

Quarter or Month / Year

Facility Name: _____ Date(s) of Monitoring: _____
Facility Permit #'s: _____ Monitoring Conducted by: _____
Permit #'s (cont): _____ Equipment Field Calibrated by: _____
County (Location): _____ Date of Field Calibration: _____
Monitoring Equipment: _____ Manufacturer Calibration/Service Date: _____

- 1.** All reports must include a scaled and dated potentiometric surface map, (this applies only to those facilities required to perform groundwater monitoring) that shows ALL monitoring points, accompanied by a table listing the as-built depths and corresponding elevations of the bottoms of the methane monitoring wells and/or barhole punches. The potentiometric surface maps must be updated on an annual basis, signed & sealed by a qualified groundwater scientist. Those facilities that do not conduct groundwater monitoring should, at a minimum, include a site map that shows ALL monitoring locations.
- 2.** All reports must specify whether each monitoring location is a structure, permanent well, barhole punch or vent (e.g. MM-1=scalehouse, MM-1=well, MM-1=BHP (barhole punch), MM-1=vent, or GWC-1=groundwater well).

3. Monitoring Results**a. Permanent Approved COMPLIANCE Monitoring Locations**

Monitoring Point Identification	Monitoring Results	Monitoring Point Identification	Monitoring Results
	% Methane By Volume: % Oxygen: Time Sampled:		% Methane By Volume: % Oxygen: Time Sampled:
	% Methane By Volume: % Oxygen: Time Sampled:		% Methane By Volume: % Oxygen: Time Sampled:



% Methane By Volume:		% Methane By Volume:	
% Oxygen:		% Oxygen:	
Time Sampled:		Time Sampled:	
% Methane By Volume:		% Methane By Volume:	
% Oxygen:		% Oxygen:	
Time Sampled:		Time Sampled:	
% Methane By Volume:		% Methane By Volume:	
% Oxygen:		% Oxygen:	
Time Sampled:		Time Sampled:	

a. Permanent Approved COMPLIANCE Monitoring Locations (continued)

<u>Monitoring Point Identification</u>	<u>Monitoring Results</u>	<u>Monitoring Point Identification</u>	<u>Monitoring Results</u>
% Methane By Volume:		% Methane By Volume:	
% Oxygen:		% Oxygen:	
Time Sampled:		Time Sampled:	
% Methane By Volume:		% Methane By Volume:	
% Oxygen:		% Oxygen:	
Time Sampled:		Time Sampled:	
% Methane By Volume:		% Methane By Volume:	
% Oxygen:		% Oxygen:	
Time Sampled:		Time Sampled:	
% Methane By Volume:		% Methane By Volume:	
% Oxygen:		% Oxygen:	
Time Sampled:		Time Sampled:	
% Methane By Volume:		% Methane By Volume:	
% Oxygen:		% Oxygen:	
Time Sampled:		Time Sampled:	

**b. Facility Structures (All on-site structures must be monitored, listed, and shown on map)**

<u>Facility Structure</u>	<u>Monitoring Results</u>	<u>Facility Structure</u>	<u>Monitoring Results</u>
% LEL: _____	% Methane by Volume: _____	% LEL: _____	% Methane by Volume: _____
% Oxygen: _____	% Oxygen: _____	% Oxygen: _____	% Oxygen: _____
Time Sampled: _____	Time Sampled: _____	Time Sampled: _____	Time Sampled: _____

c. Miscellaneous Monitoring Locations (vents, trenches not part of compliance monitoring)

<u>Monitoring Point Identification</u>	<u>Monitoring Results</u>	<u>Monitoring Point Identification</u>	<u>Monitoring Results</u>
% Methane By Volume: _____	% Oxygen: _____	% Methane By Volume: _____	% Oxygen: _____
Time Sampled: _____	Time Sampled: _____	Time Sampled: _____	Time Sampled: _____
% Methane By Volume: _____	% Oxygen: _____	% Methane By Volume: _____	% Oxygen: _____
Time Sampled: _____	Time Sampled: _____	Time Sampled: _____	Time Sampled: _____
% Methane By Volume: _____	% Oxygen: _____	% Methane By Volume: _____	% Oxygen: _____
Time Sampled: _____	Time Sampled: _____	Time Sampled: _____	Time Sampled: _____
% Methane By Volume: _____	% Oxygen: _____	% Methane By Volume: _____	% Oxygen: _____
Time Sampled: _____	Time Sampled: _____	Time Sampled: _____	Time Sampled: _____

**d. Adjacent Off-site Structures (offsite structures at facilities with known release)**

<u>Off-site Structure</u>	<u>Monitoring Results</u>	<u>Off-site Structure</u>	<u>Monitoring Results</u>
% LEL:		% LEL:	
% Methane by Volume:		% Methane by Volume:	
% Oxygen:		% Oxygen:	
Time Sampled:		Time Sampled:	
% LEL:		% LEL:	
% Methane by Volume:		% Methane by Volume:	
% Oxygen:		% Oxygen:	
Time Sampled:		Time Sampled:	

4. Climatic/Physical Conditions at Site

Samples must be collected under normal/average conditions of temperature, pressure, and climate for the season. Barhole punch sampling should not be performed during or immediately after rain events, or when soils are saturated or frozen. **All sampling at compliance monitoring locations must be performed after 12:00 pm, and completed by 6:00 pm.** Barometric information can be obtained from many locations.

(i.e. <http://weather.noaa.gov>)

- a. Soil Conditions: _____
- b. Weather Conditions: _____
- c. Temperature: _____
- d. Barometric Conditions: Rising _____ Falling _____ Steady _____ Reading _____
- e. Relative Humidity 10%-90%? Yes _____ No _____ Range: _____
- f. Condition/Access: Sampling points are properly identified, secured and maintained? Yes _____ No _____

If no please list deficiencies observed:

- g. If stressed vegetation due to the presence of methane gas is noted, describe the extent and location in the space provided below.



- 5. Description of Sampling Techniques:** Provide a clear and concise description for each type of sampling (well, barhole punch, structure, etc.) performed during the monitoring event. Wells are NOT to be vented, peak readings should be reported. Any exceptions should be noted here.

- 6. Additional Comments**

CERTIFICATION

I CERTIFY that all required information on this form is complete and accurate, and

I further CERTIFY that methane sampling was conducted by myself or my authorized representative in accordance with all applicable rules and current EPD guidance. Concentrations of methane detected during this sampling/monitoring event do / do not exceed 25 percent of the lower explosive limit (LEL) for methane in facility structures (excluding the gas recovery system components) and gas concentrations do / do not exceed the LEL for methane at the approved compliance monitoring locations.

**(IF THIS STATEMENT IS NOT SIGNED OR THE FORM IS ALTERED THE DIVISION WILL NOT
ACCEPT THE RESULTS FROM THE SUBJECT FACILITY)**